

**Supplementary Table 8: Genome-wide determination potential ORF from maximally extendable ORFs and proteomics data sets.** Abbreviations: log, log phase; heat, heat-shocked condition; stat, stationary phase; pub, publicly available source; equal, exactly match; inside, ORF is inside pORF; FP, false positive.

pORF	Left	Right	Len	Strand	Frame	Peptide			FOC			Current annotation				Match	
						pub	R1	R2	R3	R1	R2	R3	bnum	Gene	Left		Right
pORF+_337	337	2799	2463	+	1	25	90	140	186	2421	3035	3524	b0002	thrA	337	2799	equal
pORF+_2801	2801	3733	933	+	2	4	11	22	31	215	261	290	b0003	thrB	2801	3733	equal
pORF+_3734	3734	5020	1287	+	2	14	59	87	117	2243	2818	3490	b0004	thrC	3734	5020	equal
pORF+_8175	8175	9191	1017	+	3	27	85	111	142	3474	4269	4767	b0008	talB	8238	9191	inside
pORF+_9303	9303	9893	591	+	3	6	13	18	21	98	117	129	b0009	mog	9306	9893	inside
pORF+_12163	12163	14079	1917	+	1	48	119	187	261	4870	6451	8561	b0014	dnaK	12163	14079	equal
pORF+_14138	14138	15298	1161	+	2	9	20	35	47	188	265	329	b0015	dnaJ	14168	15298	inside
pORF+_15439	15439	16557	1119	+	1	0	0	3	3	0	9	9	b0016	insL	15445	16557	inside
pORF+_21407	21407	22348	942	+	2	0	2	6	13	14	26	50	b0025	ribF	21407	22348	equal
pORF+_22391	22391	25207	2817	+	2	40	71	114	154	504	809	1052	b0026	ileS	22391	25207	equal
pORF+_24460	24460	24555	96	+	1	0	1	1	1	2	2	2					FP
pORF+_25826	25826	26275	450	+	2	2	4	7	10	43	54	66	b0028	fkpB	25826	26275	equal
pORF+_26193	26193	27227	1035	+	3	2	9	13	14	89	103	105	b0029	ispH	26277	27227	inside
pORF+_27293	27293	28207	915	+	2	0	1	3	6	7	12	25	b0030	rihC	27293	28207	equal
pORF+_28374	28374	29195	822	+	3	5	22	37	49	450	591	757	b0031	dapB	28374	29195	equal
pORF+_29624	29624	30799	1176	+	2	10	31	53	75	924	1161	1335	b0032	carA	29651	30799	inside
pORF+_30817	30817	34038	3222	+	1	34	139	196	249	3488	3972	4405	b0033	carB	30817	34038	equal
pORF+_34195	34195	34695	501	+	1	0	2	2	2	19	19	19	b0034	caiF	34300	34695	inside
pORF+_37150	37150	37317	168	+	1	0	1	1	1	3	3	3					FP
pORF+_44180	44180	45466	1287	+	2	0	1	1	1	3	3	3	b0043	fixC	44180	45466	equal
pORF+_47246	47246	47776	531	+	2	0	1	1	1	2	2	2	b0046	kefF	47246	47776	equal
pORF+_47673	47673	49631	1959	+	3	0	1	1	1	3	3	3	b0047	kefC	47769	49631	inside
pORF+_49688	49688	50302	615	+	2	0	3	5	7	9	16	27	b0048	folA	49823	50302	inside
pORF+_57319	57319	58179	861	+	1	0	0	1	1	0	2	2	b0055	djIA	57364	58179	inside
pORF+_61963	61963	62580	618	+	1	0	1	1	1	8	8	8					FP
pORF+_69630	69630	69881	252	+	3	0	1	1	1	2	2	2					FP
pORF+_70336	70336	71265	930	+	1	0	0	1	2	0	4	9	b0064	araC	70387	71265	inside
pORF+_81703	81703	81846	144	+	1	0	0	1	1	0	3	3					FP
pORF+_82918	82918	83313	396	+	1	0	1	2	2	94	218	218					FP
pORF+_85540	85540	87354	1815	+	1	4	15	37	51	90	185	258	b0077	ilvI	85630	87354	inside
pORF+_86343	86343	86444	102	+	3	0	1	1	1	5	5	5					FP
pORF+_87327	87327	87848	522	+	3	3	12	18	24	434	456	481	b0078	ilvH	87357	87848	inside
pORF+_88028	88028	89032	1005	+	2	0	2	8	12	13	30	48	b0080	fruR	88028	89032	equal
pORF+_89598	89598	90092	495	+	3	0	0	2	4	0	6	13	b0081	mraZ	89634	90092	inside
pORF+_89965	89965	91035	1071	+	1	0	10	20	28	155	188	224	b0082	mraW	90094	91035	inside
pORF+_91032	91032	91397	366	+	3	0	0	2	2	0	5	5	b0083	ftsL	91032	91397	equal
pORF+_93166	93166	94653	1488	+	1	3	6	17	28	119	159	204	b0085	murE	93166	94653	equal
pORF+_93201	93201	93374	174	+	3	0	0	1	1	0	4	4					FP
pORF+_94650	94650	96008	1359	+	3	2	4	9	11	14	38	43	b0086	murF	94650	96008	equal
pORF+_97087	97087	98403	1317	+	1	0	0	8	18	0	29	70	b0088	murD	97087	98403	equal
pORF+_98400	98400	99647	1248	+	3	0	0	1	1	0	2	2	b0089	ftsW	98403	99647	inside
pORF+_99644	99644	100711	1068	+	2	2	2	7	10	0	14	27	b0090	murG	99644	100711	equal

pORF+_100765	100765	102240	1476	+	1	4	11	17	24	55	83	108	b0091	murC	100765	102240	equal	
pORF+_102233	102233	103153	921	+	2	6	8	17	24	13	47	67	b0092	ddlB	102233	103153	equal	
pORF+_103155	103155	103985	831	+	3	0	0	1	1	0	2	2	b0093	ftsQ	103155	103985	equal	
pORF+_103982	103982	105244	1263	+	2	0	3	13	27	26	72	137	b0094	ftsA	103982	105244	equal	
pORF+_105305	105305	106456	1152	+	2	15	61	90	119	1740	1926	2094	b0095	ftsZ	105305	106456	equal	
pORF+_106557	106557	107474	918	+	3	0	0	2	7	0	4	26	b0096	lpxC	106557	107474	equal	
pORF+_108279	108279	110984	2706	+	3	16	59	96	132	780	1022	1294	b0098	secA	108279	110984	equal	
pORF+_113444	113444	114487	1044	+	2	7	24	39	49	418	532	613	b0104	guaC	113444	114487	equal	
pORF+_118733	118733	119284	552	+	2	0	1	2	3	16	18	20	b0110	ampD	118733	119284	equal	
pORF+_119242	119242	120135	894	+	1	0	0	0	1	0	0	2	b0111	ampE	119281	120135	inside	
pORF+_122059	122059	122856	798	+	1	0	3	8	12	16	35	52	b0113	pdhR	122092	122856	inside	
pORF+_123017	123017	125680	2664	+	2	54	133	207	275	2034	2851	3774	b0114	aceE	123017	125680	equal	
pORF+_125695	125695	127587	1893	+	1	35	112	161	208	3001	3483	4155	b0115	aceF	125695	127587	equal	
pORF+_127879	127879	129336	1458	+	1	27	88	119	152	3655	4006	4367	b0116	lpd	127912	129336	inside	
pORF+_131462	131462	134212	2751	+	2	31	113	170	230	4001	5568	7054	b0118	acnB	131615	134212	inside	
pORF+_134340	134340	134750	411	+	3	0	2	2	4	5	5	17	b0119	yacl	134388	134750	inside	
pORF+_137044	137044	138633	1590	+	1	0	11	27	38	331	388	433	b0123	cueO	137083	138633	inside	
pORF+_141356	141356	141967	612	+	2	6	22	29	37	275	324	400	b0125	hpt	141431	141967	inside	
pORF+_142779	142779	143705	927	+	3	3	6	11	14	13	27	34	b0127	yadG	142779	143705	equal	
pORF+_159818	159818	159907	90	+	2	0	0	1	1	0	2	2						FP
pORF+_162060	162060	164534	2475	+	3	0	0	1	2	0	5	7	b0148	hrpB	162105	164534	inside	
pORF+_164715	164715	167264	2550	+	3	0	2	9	19	4	45	88	b0149	mrcB	164730	167264	inside	
pORF+_167484	167484	169727	2244	+	3	16	28	57	73	150	268	336	b0150	fhuA	167484	169727	equal	
pORF+_169736	169736	170575	840	+	2	0	1	2	2	2	4	4	b0151	fhuC	169778	170575	inside	
pORF+_170572	170572	171465	894	+	1	0	1	2	2	2	4	4	b0152	fhuD	170575	171465	inside	
pORF+_171462	171462	173444	1983	+	3	0	1	1	1	3	3	3	b0153	fhuB	171462	173444	equal	
pORF+_176577	176577	176954	378	+	3	3	12	16	18	419	471	476	b0156	erpA	176610	176954	inside	
pORF+_179237	179237	180754	1518	+	2	0	1	1	1	8	8	8	b0160	dgt	179237	180754	equal	
pORF+_180884	180884	182308	1425	+	2	15	34	52	69	544	655	784	b0161	degP	180884	182308	equal	
pORF+_188740	188740	188952	213	+	1	0	1	1	1	2	2	2						FP
pORF+_189676	189676	190599	924	+	1	19	84	113	142	5082	5588	5991	b0169	rpsB	189874	190599	inside	
pORF+_190857	190857	191708	852	+	3	25	109	135	165	4372	4987	5731	b0170	tsf	190857	191708	equal	
pORF+_191855	191855	192580	726	+	2	8	25	33	41	501	690	806	b0171	pyrH	191855	192580	equal	
pORF+_192872	192872	193429	558	+	2	6	41	51	63	1776	1872	2072	b0172	frr	192872	193429	equal	
pORF+_193521	193521	194717	1197	+	3	0	0	1	3	0	3	10	b0173	dxr	193521	194717	equal	
pORF+_194903	194903	195664	762	+	2	2	3	4	4	2	6	6	b0174	ispU	194903	195664	equal	
pORF+_196501	196501	197898	1398	+	1	0	0	2	2	0	4	4	b0176	rseP	196546	197898	inside	
pORF+_197928	197928	200360	2433	+	3	29	45	81	110	233	375	499	b0177	bamA	197928	200360	equal	
pORF+_200482	200482	200967	486	+	1	5	50	60	72	3169	3300	3528	b0178	skp	200482	200967	equal	
pORF+_200971	200971	201996	1026	+	1	3	11	19	24	157	212	230	b0179	lpxD	200971	201996	equal	
pORF+_202008	202008	202556	549	+	3	6	15	28	36	556	644	719	b0180	fabZ	202101	202556	inside	
pORF+_202560	202560	203348	789	+	3	4	13	18	24	170	189	211	b0181	lpxA	202560	203348	equal	
pORF+_203348	203348	204496	1149	+	2	0	1	2	4	2	4	8	b0182	lpxB	203348	204496	equal	
pORF+_205126	205126	208608	3483	+	1	3	3	3	4	0	0	2	b0184	dnaE	205126	208608	equal	
pORF+_208621	208621	209580	960	+	1	13	48	62	76	1560	1641	1725	b0185	accA	208621	209580	equal	
pORF+_209679	209679	211820	2142	+	3	1	1	2	6	0	2	14	b0186	ldcC	209679	211820	equal	

pORF+_209848	209848	210396	549	+	1	0	0	1	1	0	5	5							FP
pORF+_211850	211850	212266	417	+	2	0	2	4	5	13	19	25	b0187 yaeR	211877	212266	inside			
pORF+_212331	212331	213629	1299	+	3	0	0	1	2	0	4	6	b0188 tilS	212331	213629	equal			
pORF+_213714	213714	213806	93	+	3	0	0	1	2	0	4	8							FP
pORF+_215269	215269	215979	711	+	1	0	1	4	7	2	10	19	b0192 nlpE	215269	215979	equal			
pORF+_219188	219188	219403	216	+	2	0	1	1	1	4	4	4							FP
pORF+_219943	219943	220083	141	+	1	0	0	1	2	0	4	8							FP
pORF+_221164	221164	221508	345	+	1	0	1	1	1	2	2	2							FP
pORF+_222833	222833	223408	576	+	2	2	6	10	14	42	67	84	b0200 gmhB	222833	223408	equal			
pORF+_229167	229167	229970	804	+	3	0	3	8	13	19	41	64	b0207 dkgB	229167	229970	equal			
pORF+_231122	231122	231922	801	+	2	0	1	1	1	2	2	2	b0209 yafD	231122	231922	equal			
pORF+_236058	236058	236798	741	+	3	0	1	2	2	4	6	6	b0215 dnaQ	236067	236798	inside			
pORF+_239154	239154	239378	225	+	3	0	0	1	1	0	2	2	b4503 yafF	239106	239378	contain			
pORF+_240343	240343	240816	474	+	1	0	9	16	24	239	267	314	b0220 ivy	240343	240816	equal			
pORF+_243510	243510	244121	612	+	3	6	22	32	40	801	902	975	b0222 lpcA	243543	244121	inside			
pORF+_244312	244312	245094	783	+	1	0	0	1	4	0	3	12	b0223 yafJ	244327	245094	inside			
pORF+_249937	249937	250827	891	+	1	0	2	2	2	4	4	4	b0230 lafU	250072	250827	inside			
pORF+_255977	255977	256435	459	+	2	5	15	21	27	284	317	349	b0238 gpt	255977	256435	equal			
pORF+_256527	256527	257771	1245	+	3	0	0	11	18	0	28	47	b0239 frsA	256527	257771	equal			
pORF+_257829	257829	258230	402	+	3	3	7	12	17	18	33	46	b0240 crl	257829	258230	equal			
pORF+_259525	259525	260715	1191	+	1	5	18	31	41	152	188	226	b0242 proB	259612	260715	inside			
pORF+_260727	260727	261980	1254	+	3	9	25	37	50	247	292	334	b0243 proA	260727	261980	equal			
pORF+_265665	265665	265973	309	+	3	0	1	1	1	2	2	2							
pORF+_274525	274525	275952	1428	+	1	0	0	1	1	0	2	2	b0260 mmuP	274549	275952	inside			
pORF+_275795	275795	276871	1077	+	2	0	1	1	1	3	3	3	b0261 mmuM	275939	276871	inside			
pORF+_278687	278687	278956	270	+	2	0	3	3	3	15	15	15							FP
pORF+_279476	279476	279616	141	+	2	0	0	1	2	0	13	26							FP
pORF+_281481	281481	282410	930	+	3	1	2	3	3	3	5	5	b0268 yagE	281481	282410	equal			
pORF+_282404	282404	284392	1989	+	2	0	1	1	1	4	4	4	b0269 yagF	282425	284392	inside			
pORF+_283120	283120	283269	150	+	1	0	1	1	1	2	2	2							FP
pORF+_284619	284619	286001	1383	+	3	0	1	2	3	3	8	11	b0270 yagG	284619	286001	equal			
pORF+_287280	287280	287480	201	+	3	0	0	0	1	0	0	2							FP
pORF+_290158	290158	290427	270	+	1	0	3	3	3	15	15	15							FP
pORF+_302215	302215	302829	615	+	1	0	0	2	6	0	8	25	b0287 yagU	302215	302829	equal			
pORF+_314506	314506	314814	309	+	1	0	0	5	10	0	10	35	b0298 insE	314506	314814	equal			
pORF+_314811	314811	315677	867	+	3	0	0	0	5	0	0	10	b0299 insF	314811	315677	equal			
pORF+_320832	320832	321551	720	+	3	1	4	4	4	19	19	19	b0306 ykgE	320832	321551	equal			
pORF+_321562	321562	322989	1428	+	1	0	1	1	1	5	5	5	b0307 ykgF	321562	322989	equal			
pORF+_322829	322829	323677	849	+	2	0	2	2	2	4	4	4	b0308 ykgG	322982	323677	inside			
pORF+_327441	327441	327638	198	+	3	0	1	1	1	2	2	2							FP
pORF+_331589	331589	332683	1095	+	2	0	0	0	1	0	0	2	b0315 yahA	331595	332683	inside			
pORF+_334504	334504	335109	606	+	1	0	1	1	1	4	4	4	b0318 yahD	334504	335109	equal			
pORF+_335149	335149	336012	864	+	1	0	1	1	1	2	2	2	b0319 yahE	335149	336012	equal			
pORF+_336002	336002	337549	1548	+	2	0	1	1	1	2	2	2	b0320 yahF	336002	337549	equal			
pORF+_337549	337549	338967	1419	+	1	0	2	2	2	4	4	4	b0321 yahG	337549	338967	equal			
pORF+_339389	339389	340339	951	+	2	2	2	2	2	0	0	0	b0323 yahI	339389	340339	equal			

pORF+_340349	340349	341731	1383	+	2	0	0	3	8	0	6	17	b0324	yahJ	340349	341731	equal	
pORF+_342108	342108	343157	1050	+	3	0	21	39	54	308	378	446	b0325	yahK	342108	343157	equal	
pORF+_345708	345708	345983	276	+	3	0	12	18	28	172	200	412	b0329	yahO	345708	345983	equal	
pORF+_347906	347906	348796	891	+	2	0	0	0	2	0	0	4	b0331	prpB	347906	348796	equal	
pORF+_349236	349236	350405	1170	+	3	0	0	0	2	0	0	4	b0333	prpC	349236	350405	equal	
pORF+_350439	350439	351890	1452	+	3	0	1	1	1	3	3	3	b0334	prpD	350439	351890	equal	
pORF+_352003	352003	352143	141	+	1	0	1	1	1	2	2	2						
pORF+_352501	352501	352950	450	+	1	0	1	1	1	4	4	4						
pORF+_354146	354146	355405	1260	+	2	0	0	4	4	0	10	10	b0336	codB	354146	355405	equal	
pORF+_355380	355380	356678	1299	+	3	0	9	28	43	150	256	351	b0337	codA	355395	356678	inside	
pORF+_370400	370400	371329	930	+	2	0	1	1	1	2	2	2	b0349	mhpC	370448	371329	inside	
pORF+_374638	374638	375894	1257	+	1	0	1	1	1	2	2	2	b0353	mhpT	374683	375894	inside	
pORF+_375879	375879	376535	657	+	3	1	6	8	11	39	43	51	b0354	yaiL	375996	376535	inside	
pORF+_377962	377962	378705	744	+	1	0	1	1	1	2	2	2						FP
pORF+_384399	384399	385418	1020	+	3	0	1	1	1	4	4	4	b0365	tauA	384456	385418	inside	
pORF+_385431	385431	386198	768	+	3	1	1	1	1	0	0	0	b0366	tauB	385431	386198	equal	
pORF+_386195	386195	387022	828	+	2	0	0	0	1	0	0	2	b0367	tauC	386195	387022	equal	
pORF+_387019	387019	387870	852	+	1	0	0	1	1	0	2	2	b0368	tauD	387019	387870	equal	
pORF+_397096	397096	398190	1095	+	1	0	0	0	1	0	0	2	b0378	yaiW	397096	398190	equal	
pORF+_400610	400610	400870	261	+	2	0	5	7	9	87	96	105	b0382	iraP	400610	400870	equal	
pORF+_400902	400902	402386	1485	+	3	0	1	1	1	8	8	8	b0383	phoA	400971	402386	inside	
pORF+_402487	402487	402825	339	+	1	0	1	1	4	6	6	16	b0384	psiF	402505	402825	inside	
pORF+_404868	404868	405446	579	+	3	0	0	1	3	0	14	41	b0387	yaiI	404988	405446	inside	
pORF+_405629	405629	406153	525	+	2	0	4	8	9	18	30	32	b0388	aroL	405629	406153	equal	
pORF+_406203	406203	406394	192	+	3	0	1	3	5	2	7	18	b0389	yaiA	406203	406394	equal	
pORF+_406652	406652	407329	678	+	2	0	1	1	1	7	7	7	b0390	aroM	406652	407329	equal	
pORF+_407401	407401	407685	285	+	1	2	5	7	7	221	225	225	b0391	yaiE	407401	407685	equal	
pORF+_409230	409230	410276	1047	+	3	1	4	6	9	15	20	28	b0394	mak	409368	410276	inside	
pORF+_416366	416366	417055	690	+	2	1	1	2	3	0	2	4	b0399	phoB	416366	417055	equal	
pORF+_417113	417113	418408	1296	+	2	0	0	0	1	0	0	3	b0400	phoR	417113	418408	equal	
pORF+_420207	420207	421583	1377	+	3	0	1	2	2	2	5	5	b0402	proY	420210	421583	inside	
pORF+_421739	421739	423556	1818	+	2	0	1	2	2	3	5	5	b0403	malZ	421739	423556	equal	
pORF+_422922	422922	423197	276	+	3	0	1	1	1	2	2	2						FP
pORF+_424235	424235	425305	1071	+	2	1	5	11	13	46	63	68	b0405	queA	424235	425305	equal	
pORF+_425361	425361	426488	1128	+	3	13	19	37	48	22	116	180	b0406	tgt	425361	426488	equal	
pORF+_426481	426481	426843	363	+	1	2	2	9	15	0	44	84	b0407	yajC	426511	426843	inside	
pORF+_426871	426871	428718	1848	+	1	17	25	36	48	82	118	158	b0408	secD	426871	428718	equal	
pORF+_428684	428684	429700	1017	+	2	2	5	12	18	8	34	52	b0409	secF	428729	429700	inside	
pORF+_432226	432226	432675	450	+	1	0	7	10	11	47	58	64	b0413	nrdR	432226	432675	equal	
pORF+_432679	432679	433782	1104	+	1	0	3	7	9	20	33	40	b0414	ribD	432679	433782	equal	
pORF+_432755	432755	432958	204	+	2	0	1	1	1	5	5	5						FP
pORF+_433775	433775	434341	567	+	2	8	29	40	51	1802	1960	2108	b0415	ribE	433871	434341	inside	
pORF+_434361	434361	434780	420	+	3	4	10	14	16	145	159	165	b0416	nusB	434361	434780	equal	
pORF+_434858	434858	435835	978	+	2	0	3	6	10	61	70	84	b0417	thiL	434858	435835	equal	
pORF+_440773	440773	442221	1449	+	1	8	12	22	30	62	108	150	b0423	thiI	440773	442221	equal	
pORF+_443739	443739	444398	660	+	3	10	46	57	70	2246	2397	2591	b0426	yajQ	443907	444398	inside	

pORF+_453663	453663	454013	351	+	3	2	3	6	10	6	50	132	b0435	bolA	453696	454013	inside	
pORF+_454357	454357	455655	1299	+	1	37	181	215	247	12527	13008	13384	b0436	tig	454357	455655	equal	
pORF+_455901	455901	456524	624	+	3	5	18	25	30	337	389	456	b0437	clpP	455901	456524	equal	
pORF+_456650	456650	457924	1275	+	2	15	55	80	106	1413	1667	1894	b0438	clpX	456650	457924	equal	
pORF+_458067	458067	460466	2400	+	3	34	81	116	152	778	969	1165	b0439	lon	458112	460466	inside	
pORF+_460675	460675	460947	273	+	1	7	33	39	47	9138	10094	10879	b0440	hupB	460675	460947	equal	
pORF+_461139	461139	463010	1872	+	3	14	48	72	99	827	930	1041	b0441	ppiD	461139	463010	equal	
pORF+_463626	463626	464024	399	+	3	0	0	0	1	0	0	6	b0443	ybaW	463626	464024	equal	
pORF+_468095	468095	469867	1773	+	2	1	1	1	1	0	0	0	b0448	mdIA	468095	469867	equal	
pORF+_469746	469746	471641	1896	+	3	0	0	1	2	0	2	6	b0449	mdIB	469860	471641	inside	
pORF+_471684	471684	472160	477	+	3	1	1	1	1	0	0	0	b0450	glnK	471822	472160	inside	
pORF+_474603	474603	475175	573	+	3	0	5	8	11	59	73	101	b0453	ybaY	474603	475175	equal	
pORF+_484665	484665	485204	540	+	3	0	1	1	1	3	3	3						FP
pORF+_485760	485760	489122	3363	+	3	4	7	14	22	8	28	49	b0465	kefA	485760	489122	equal	
pORF+_490582	490582	491187	606	+	1	9	28	38	48	753	927	1015	b0469	apt	490636	491187	inside	
pORF+_491316	491316	493247	1932	+	3	0	3	6	6	11	19	19	b0470	dnaX	491316	493247	equal	
pORF+_493285	493285	493629	345	+	1	6	25	30	34	970	1036	1115	b0471	ybaB	493300	493629	inside	
pORF+_493629	493629	494234	606	+	3	0	2	5	5	42	49	49	b0472	recR	493629	494234	equal	
pORF+_494344	494344	496218	1875	+	1	35	64	106	153	595	913	1255	b0473	htpG	494344	496218	equal	
pORF+_496339	496339	497043	705	+	1	14	85	99	115	5244	5370	5542	b0474	adk	496399	497043	inside	
pORF+_497279	497279	498241	963	+	2	0	0	1	4	0	2	14	b0475	hemH	497279	498241	equal	
pORF+_499078	499078	499116	39	+	1	0	0	0	1	0	0	6						FP
pORF+_499349	499349	500653	1305	+	2	0	1	10	18	2	33	63	b0477	gsk	499349	500653	equal	
pORF+_504138	504138	505790	1653	+	3	6	14	26	44	61	126	198	b0480	ushA	504138	505790	equal	
pORF+_507388	507388	507783	396	+	1	0	0	2	2	0	5	5	b0483	ybaQ	507442	507783	inside	
pORF+_510865	510865	511797	933	+	1	0	2	5	13	30	37	93	b0485	ybaS	510865	511797	equal	
pORF+_513217	513217	513624	408	+	1	0	0	1	1	0	2	2	b0487	cueR	513217	513624	equal	
pORF+_515143	515143	515820	678	+	1	0	0	4	5	0	9	12	b0490	ybbL	515143	515820	equal	
pORF+_518957	518957	519643	687	+	2	0	1	1	1	2	2	2	b0495	ybbA	518957	519643	equal	
pORF+_519640	519640	522054	2415	+	1	0	1	1	2	17	17	19	b0496	ybbP	519640	522054	equal	
pORF+_522485	522485	526765	4281	+	2	0	0	0	1	0	0	2	b0497	rhsD	522485	526765	equal	
pORF+_532235	532235	533050	816	+	2	6	10	17	21	47	75	97	b0506	allR	532235	533050	equal	
pORF+_533050	533050	534921	1872	+	1	0	1	1	3	2	2	7	b0507	gcl	533140	534921	inside	
pORF+_534934	534934	535710	777	+	1	0	0	0	5	0	0	34	b0508	hyi	534934	535710	equal	
pORF+_535810	535810	536688	879	+	1	0	0	0	2	0	0	16	b0509	glxR	535810	536688	equal	
pORF+_539524	539524	539664	141	+	1	0	0	1	2	0	6	12						FP
pORF+_548757	548757	549665	909	+	3	0	1	1	1	2	2	2	b0520	ylbF	548850	549665	inside	
pORF+_552933	552933	553088	156	+	3	0	0	0	1	0	0	2						FP
pORF+_553834	553834	555219	1386	+	1	10	29	50	62	240	314	375	b0526	cysS	553834	555219	equal	
pORF+_566056	566056	566364	309	+	1	0	0	5	10	0	10	35	b0540	insE	566056	566364	equal	
pORF+_566361	566361	567227	867	+	3	0	0	0	5	0	0	10	b0541	insF	566361	567227	equal	
pORF+_567918	567918	568067	150	+	3	0	0	1	1	0	3	3						FP
pORF+_593244	593244	593777	534	+	3	0	1	1	1	2	2	2						FP
pORF+_594823	594823	596196	1374	+	1	0	1	1	1	2	2	2	b0572	cusC	594823	596196	equal	
pORF+_596354	596354	596686	333	+	2	0	1	2	3	2	4	7	b0573	cusF	596354	596686	equal	
pORF+_596702	596702	597925	1224	+	2	2	3	3	3	2	2	2	b0574	cusB	596702	597925	equal	

pORF+_597937	597937	601080	3144	+	1	0	1	1	1	6	6	6	b0575	cusA	597937	601080	equal	
pORF+_601146	601146	602558	1413	+	3	0	0	0	1	0	0	2	b0576	pheP	601182	602558	inside	
pORF+_603072	603072	603305	234	+	3	0	1	1	1	2	2	2						FP
pORF+_607282	607282	608400	1119	+	1	0	0	3	3	0	9	9	b0582	insL	607288	608400	inside	
pORF+_611960	611960	613162	1203	+	2	0	1	1	1	2	2	2	b0585	fes	612038	613162	inside	
pORF+_613159	613159	613383	225	+	1	2	4	4	4	53	53	53	b4511	ybdZ	613165	613383	inside	
pORF+_613242	613242	617261	4020	+	3	17	20	21	22	8	10	13	b0586	entF	613380	617261	inside	
pORF+_621523	621523	622773	1251	+	1	0	1	2	3	75	81	84	b0591	entS	621523	622773	equal	
pORF+_624096	624096	625283	1188	+	3	12	30	32	33	350	355	357	b0593	entC	624108	625283	inside	
pORF+_625293	625293	626903	1611	+	3	10	16	17	19	43	46	50	b0594	entE	625293	626903	equal	
pORF+_626917	626917	627774	858	+	1	8	12	15	16	23	31	33	b0595	entB	626917	627774	equal	
pORF+_627744	627744	628520	777	+	3	8	19	20	20	290	292	292	b0596	entA	627774	628520	inside	
pORF+_628523	628523	628936	414	+	2	2	5	5	5	37	37	37	b0597	ybdB	628523	628936	equal	
pORF+_629117	629117	631222	2106	+	2	0	0	1	6	0	2	22	b0598	cstA	629117	631222	equal	
pORF+_632809	632809	633969	1161	+	1	0	0	6	9	0	75	83	b0600	ybdL	632809	633969	equal	
pORF+_638168	638168	638731	564	+	2	16	65	94	124	4187	5147	5888	b0605	ahpC	638168	638731	equal	
pORF+_638946	638946	640541	1596	+	3	20	59	82	101	867	1014	1112	b0606	ahpF	638976	640541	inside	
pORF+_645975	645975	646124	150	+	3	0	1	1	1	3	3	3						FP
pORF+_647226	647226	648620	1395	+	3	0	1	1	1	5	5	5						
pORF+_653085	653085	653765	681	+	3	0	0	1	2	0	2	5	b0620	dpiA	653085	653765	equal	
pORF+_656485	656485	656724	240	+	1	13	25	28	33	1033	1063	1081	b0623	cspE	656515	656724	inside	
pORF+_658170	658170	658373	204	+	3	0	1	2	2	2	4	4	b0627	tatE	658170	658373	equal	
pORF+_665755	665755	666726	972	+	1	0	1	1	1	4	4	4						FP
pORF+_667141	667141	667434	294	+	1	0	1	1	1	2	2	2						FP
pORF+_674241	674241	674723	483	+	3	0	2	5	13	19	30	72	b0643	ybeL	674241	674723	equal	
pORF+_694318	694318	695499	1182	+	1	0	0	3	6	0	9	17	b0662	ubiF	694324	695499	inside	
pORF+_703167	703167	705113	1947	+	3	4	10	18	24	141	172	201	b0679	nagE	703167	705113	equal	
pORF+_705316	705316	706980	1665	+	1	29	59	78	96	654	751	850	b0680	glnS	705316	706980	equal	
pORF+_709013	709013	709339	327	+	2	0	1	1	1	2	2	2	b0682	ybfN	709013	709339	equal	
pORF+_712075	712075	712755	681	+	1	9	17	24	31	185	225	272	b0687	seqA	712210	712755	inside	
pORF+_712730	712730	714421	1692	+	2	15	42	61	79	388	499	614	b0688	pgm	712781	714421	inside	
pORF+_716934	716934	717206	273	+	3	0	2	2	2	20	20	20						FP
pORF+_717817	717817	718077	261	+	1	0	1	1	1	12	12	12						FP
pORF+_726603	726603	727094	492	+	3	0	1	1	1	3	3	3						FP
pORF+_732593	732593	732814	222	+	2	0	1	1	1	2	2	2						FP
pORF+_736123	736123	737184	1062	+	1	0	1	1	1	5	5	5	b0705	ybfL	736048	737184	contain	
pORF+_742050	742050	742793	744	+	3	4	12	21	30	112	152	210	b0710	ybgI	742050	742793	equal	
pORF+_742486	742486	742728	243	+	1	0	1	1	1	3	3	3						FP
pORF+_742816	742816	743472	657	+	1	0	1	3	5	8	13	19	b0711	ybgJ	742816	743472	equal	
pORF+_743466	743466	744398	933	+	3	1	1	4	6	0	11	16	b0712	ybgK	743466	744398	equal	
pORF+_745158	745158	745949	792	+	3	0	0	3	4	0	6	8	b0714	nei	745158	745949	equal	
pORF+_754783	754783	755130	348	+	1	0	0	2	4	0	7	15	b0722	sdhD	754783	755130	equal	
pORF+_755118	755118	756896	1779	+	3	13	48	80	112	1978	2547	3319	b0723	sdhA	755130	756896	inside	
pORF+_756912	756912	757628	717	+	3	6	19	38	55	265	420	614	b0724	sdhB	756912	757628	equal	
pORF+_757929	757929	760730	2802	+	3	28	67	112	151	981	1425	1919	b0726	sucA	757929	760730	equal	
pORF+_760745	760745	761962	1218	+	2	15	59	77	101	2153	2363	2676	b0727	sucB	760745	761962	equal	

pORF+_762237	762237	763403	1167	+	3	18	79	102	136	5602	5881	6133	b0728	sucC	762237	763403	equal	
pORF+_763403	763403	764272	870	+	2	14	53	72	89	2809	3011	3188	b0729	sucD	763403	764272	equal	
pORF+_770678	770678	772249	1572	+	2	7	13	19	26	30	69	109	b0733	cydA	770681	772249	inside	
pORF+_772265	772265	773404	1140	+	2	2	2	3	4	0	9	21	b0734	cydB	772265	773404	equal	
pORF+_773975	773975	774379	405	+	2	0	0	1	2	0	18	23	b0736	ybgC	773975	774379	equal	
pORF+_774376	774376	775068	693	+	1	4	6	11	16	9	36	60	b0737	tolQ	774376	775068	equal	
pORF+_775072	775072	775500	429	+	1	0	0	1	2	0	4	9	b0738	tolR	775072	775500	equal	
pORF+_775565	775565	776830	1266	+	2	1	2	9	15	4	21	35	b0739	tolA	775565	776830	equal	
pORF+_776960	776960	778255	1296	+	2	10	29	46	66	709	854	1081	b0740	tolB	776963	778255	inside	
pORF+_778266	778266	778811	546	+	3	7	16	24	33	123	215	325	b0741	pal	778290	778811	inside	
pORF+_778821	778821	779612	792	+	3	7	9	20	30	7	56	99	b0742	ybgF	778821	779612	equal	
pORF+_781308	781308	782351	1044	+	3	3	12	18	18	231	257	257	b0750	nadA	781308	782351	equal	
pORF+_784856	784856	785908	1053	+	2	10	49	72	93	1706	1871	2027	b0754	aroG	784856	785908	equal	
pORF+_794312	794312	795085	774	+	2	7	19	19	19	159	159	159	b0763	modA	794312	795085	equal	
pORF+_795777	795777	796835	1059	+	3	0	2	4	5	8	12	14	b0765	modC	795777	796835	equal	
pORF+_797809	797809	798804	996	+	1	10	18	27	39	73	103	151	b0767	pgl	797809	798804	equal	
pORF+_803843	803843	803944	102	+	2	0	1	1	1	2	2	2						FP
pORF+_804683	804683	804868	186	+	2	0	2	2	2	8	8	8						FP
pORF+_808567	808567	809607	1041	+	1	5	14	19	20	158	172	174	b0775	bioB	808567	809607	equal	
pORF+_809604	809604	810758	1155	+	3	0	1	5	8	3	16	23	b0776	bioF	809604	810758	equal	
pORF+_811487	811487	812170	684	+	2	5	9	12	15	82	100	120	b0778	bioD	811493	812170	inside	
pORF+_812749	812749	814770	2022	+	1	0	2	9	19	6	25	57	b0779	uvrB	812749	814770	equal	
pORF+_816186	816186	817256	1071	+	3	0	0	2	3	0	7	10	b0781	moaA	816267	817256	inside	
pORF+_817278	817278	817790	513	+	3	6	17	25	32	293	348	407	b0782	moaB	817278	817790	equal	
pORF+_817793	817793	818278	486	+	2	0	7	10	13	27	44	59	b0783	moaC	817793	818278	equal	
pORF+_818208	818208	818516	309	+	3	2	3	4	4	5	7	7	b0784	moaD	818271	818516	inside	
pORF+_818518	818518	818970	453	+	1	0	2	6	9	15	34	53	b0785	moaE	818518	818970	equal	
pORF+_821675	821675	821947	273	+	2	0	1	1	1	112	112	112						FP
pORF+_824931	824931	825107	177	+	3	0	0	1	1	0	8	8						FP
pORF+_830095	830095	831459	1365	+	1	4	8	10	11	10	15	17	b0797	rhIE	830095	831459	equal	
pORF+_834471	834471	835433	963	+	3	7	12	23	35	25	72	156	b0800	ybiB	834471	835433	equal	
pORF+_835574	835574	836659	1086	+	2	1	7	21	36	153	341	579	b0801	ybiC	835574	836659	equal	
pORF+_839807	839807	840610	804	+	2	0	1	1	1	3	3	3						FP
pORF+_841474	841474	842481	1008	+	1	0	0	1	1	0	2	2	b0807	rlmF	841555	842481	inside	
pORF+_844284	844284	844610	327	+	3	0	1	1	1	2	2	2						FP
pORF+_849667	849667	850188	522	+	1	11	24	29	32	356	373	379	b0814	ompX	849673	850188	inside	
pORF+_852406	852406	852873	468	+	1	0	3	5	6	22	32	34	b0817	mntR	852406	852873	equal	
pORF+_855186	855186	856778	1593	+	3	4	14	22	27	42	70	84	b0820	ybiT	855186	856778	equal	
pORF+_855928	855928	856077	150	+	1	0	1	1	1	7	7	7						FP
pORF+_859406	859406	859708	303	+	2	0	1	1	1	2	2	2						FP
pORF+_862793	862793	863527	735	+	2	0	2	5	9	5	16	25	b0825	fsaA	862865	863527	inside	
pORF+_865186	865186	865395	210	+	1	0	1	1	1	3	3	3						FP
pORF+_865791	865791	866756	966	+	3	0	5	10	16	22	34	55	b0828	iaaA	865791	866756	equal	
pORF+_866635	866635	868614	1980	+	1	2	3	7	10	2	16	27	b0829	gsiA	866743	868614	inside	
pORF+_868367	868367	870172	1806	+	2	0	14	23	34	138	159	192	b0830	gsiB	868634	870172	inside	
pORF+_870190	870190	871110	921	+	1	0	0	1	1	0	2	2	b0831	gsiC	870190	871110	equal	

pORF+_871113	871113	872024	912	+	3	0	0	1	1	0	2	2	b0832	gsiD	871113	872024	equal	
pORF+_872124	872124	874550	2427	+	3	0	0	3	5	0	8	12	b0833	yliE	872202	874550	inside	
pORF+_874558	874558	875886	1329	+	1	0	1	6	11	2	18	32	b0834	yliF	874558	875886	equal	
pORF+_879929	879929	881152	1224	+	2	5	13	25	44	138	201	319	b0839	dacC	879950	881152	inside	
pORF+_890407	890407	891129	723	+	1	9	10	17	24	4	39	71	b0851	nfsA	890407	891129	equal	
pORF+_891190	891190	892092	903	+	1	0	1	2	2	2	4	4	b0852	rimK	891190	892092	equal	
pORF+_892857	892857	894119	1263	+	3	3	19	31	42	194	270	354	b0854	potF	893007	894119	inside	
pORF+_894133	894133	895347	1215	+	1	3	4	5	5	7	9	9	b0855	potG	894214	895347	inside	
pORF+_897741	897741	898868	1128	+	3	1	1	1	1	0	0	0	b0859	rumB	897741	898868	equal	
pORF+_903816	903816	904139	324	+	3	0	3	3	4	30	30	34	b0866	ybjQ	903816	904139	equal	
pORF+_904136	904136	904966	831	+	2	0	0	0	1	0	0	4	b0867	amiD	904136	904966	equal	
pORF+_915696	915696	917354	1659	+	3	0	1	3	6	9	14	24	b0876	ybjD	915696	917354	equal	
pORF+_918096	918096	918374	279	+	3	0	0	0	1	0	0	3						FP
pORF+_918431	918431	919573	1143	+	2	0	2	7	10	7	20	27	b0878	macA	918458	919573	inside	
pORF+_919570	919570	921516	1947	+	1	2	2	5	9	0	11	22	b0879	macB	919570	921516	equal	
pORF+_922472	922472	924763	2292	+	2	14	31	47	63	197	266	334	b0882	clpA	922487	924763	inside	
pORF+_931764	931764	932312	549	+	3	6	19	32	45	667	769	846	b0889	lrp	931818	932312	inside	
pORF+_932447	932447	936436	3990	+	2	2	4	11	11	24	46	46	b0890	ftsK	932447	936436	equal	
pORF+_935997	935997	936440	444	+	3	0	0	1	2	0	8	16						FP
pORF+_936592	936592	937206	615	+	1	7	20	25	31	150	174	214	b0891	lolA	936595	937206	inside	
pORF+_937217	937217	938560	1344	+	2	0	1	3	6	2	7	14	b0892	rarA	937217	938560	equal	
pORF+_938651	938651	939943	1293	+	2	19	52	79	105	1313	1435	1614	b0893	serS	938651	939943	equal	
pORF+_940182	940182	942626	2445	+	3	0	7	7	7	20	20	20	b0894	dmsA	940182	942626	equal	
pORF+_942637	942637	943254	618	+	1	0	3	3	3	36	36	36	b0895	dmsB	942637	943254	equal	
pORF+_948891	948891	949481	591	+	3	0	1	2	3	2	4	7	b0901	ycaK	948891	949481	equal	
pORF+_950504	950504	952756	2253	+	2	0	1	1	1	2	2	2						FP
pORF+_954076	954076	954369	294	+	1	0	1	1	1	3	3	3						FP
pORF+_954849	954849	955118	270	+	3	0	0	1	1	0	2	2						FP
pORF+_956876	956876	957964	1089	+	2	23	73	100	125	2123	2818	3612	b0907	serC	956876	957964	equal	
pORF+_958035	958035	959318	1284	+	3	11	26	45	60	225	419	528	b0908	aroA	958035	959318	equal	
pORF+_959463	959463	960251	789	+	3	1	2	2	2	2	2	2	b0909	ycaL	959487	960251	inside	
pORF+_960424	960424	961107	684	+	1	6	15	21	26	196	229	263	b0910	cmk	960424	961107	equal	
pORF+_961218	961218	962891	1674	+	3	41	171	222	273	9747	11747	13624	b0911	rpsA	961218	962891	equal	
pORF+_963051	963051	963335	285	+	3	4	28	35	43	1128	1169	1240	b0912	ihfB	963051	963335	equal	
pORF+_963465	963465	965807	2343	+	3	0	1	1	1	6	6	6	b0913	ycaI	963543	965807	inside	
pORF+_965844	965844	967592	1749	+	3	3	14	20	25	90	105	121	b0914	msbA	965844	967592	equal	
pORF+_967589	967589	968575	987	+	2	0	1	2	2	2	4	4	b0915	lpxK	967589	968575	equal	
pORF+_969896	969896	970078	183	+	2	4	6	8	10	35	42	49	b0917	ycaR	969896	970078	equal	
pORF+_970075	970075	970821	747	+	1	7	15	22	26	259	279	290	b0918	kdsB	970075	970821	equal	
pORF+_970975	970975	971868	894	+	1	0	1	1	2	2	2	5	b0919	ycbJ	970975	971868	equal	
pORF+_972394	972394	972471	78	+	1	1	1	1	1	0	0	0						FP
pORF+_972748	972748	973545	798	+	1	0	0	1	1	0	2	2	b0921	smtA	972760	973545	inside	
pORF+_973542	973542	974864	1323	+	3	0	0	5	8	0	15	21	b0922	mukF	973542	974864	equal	
pORF+_974818	974818	975549	732	+	1	0	4	8	11	25	46	65	b0923	mukE	974872	975549	inside	
pORF+_975549	975549	980009	4461	+	3	13	30	61	90	156	257	378	b0924	mukB	975549	980009	equal	
pORF+_980270	980270	982117	1848	+	2	0	0	0	5	0	0	14	b0925	ycbB	980270	982117	equal	



pORF+_981333	981333	981503	171	+	3	1	1	1	1	0	0	0						FP
pORF+_982873	982873	983520	648	+	1	2	3	9	13	2	20	31	b0927	ycbL	982873	983520	equal	FP
pORF+_983545	983545	983967	423	+	1	0	0	1	1	0	5	5						FP
pORF+_989845	989845	992457	2613	+	1	27	50	80	115	334	502	698	b0932	pepN	989845	992457	equal	
pORF+_1003964	1003964	1005001	1038	+	2	3	15	29	40	225	295	359	b0945	pyrD	1003991	1005001	inside	
pORF+_1005139	1005139	1005717	579	+	1	0	0	1	2	0	5	16	b0946	ycbW	1005175	1005717	inside	
pORF+_1007067	1007067	1009175	2109	+	3	4	5	12	16	7	26	43	b0948	rlmL	1007067	1009175	equal	
pORF+_1009187	1009187	1011094	1908	+	2	3	5	13	19	10	31	47	b0949	uup	1009187	1011094	equal	
pORF+_1012422	1012422	1014122	1701	+	3	3	4	6	10	9	14	24	b0951	pqiB	1012482	1014122	inside	
pORF+_1014119	1014119	1014682	564	+	2	0	0	4	7	0	10	20	b0952	ymbA	1014119	1014682	equal	
pORF+_1014938	1014938	1015105	168	+	2	0	2	2	2	6	6	6	b0953	rmf	1014938	1015105	equal	
pORF+_1017708	1017708	1018160	453	+	3	0	4	5	7	28	31	35	b0956	ycbG	1017708	1018160	equal	
pORF+_1022085	1022085	1022213	129	+	3	0	0	0	1	0	0	2						FP
pORF+_1022239	1022239	1022559	321	+	1	0	1	1	1	3	3	3						FP
pORF+_1023601	1023601	1025748	2148	+	1	2	2	6	10	0	17	33	b0962	helD	1023694	1025748	inside	
pORF+_1027088	1027088	1027582	495	+	2	1	8	13	18	71	87	162	b0965	yccU	1027169	1027582	inside	
pORF+_1029074	1029074	1029565	492	+	2	0	1	3	5	58	66	85	b0968	yccX	1029287	1029565	inside	
pORF+_1031335	1031335	1032480	1146	+	1	0	1	1	1	10	10	10	b0972	hyaA	1031362	1032480	inside	
pORF+_1032477	1032477	1034270	1794	+	3	0	2	2	2	12	12	12	b0973	hyaB	1032477	1034270	equal	
pORF+_1036957	1036957	1038507	1551	+	1	0	1	1	1	2	2	2	b0978	appC	1036963	1038507	inside	
pORF+_1039810	1039810	1041138	1329	+	1	0	0	0	2	0	0	6	b0980	appA	1039840	1041138	inside	
pORF+_1044301	1044301	1044567	267	+	1	0	0	0	1	0	0	5						FP
pORF+_1050684	1050684	1050896	213	+	3	12	13	13	13	6	6	6	b0990	cspG	1050684	1050896	equal	
pORF+_1051290	1051290	1051463	174	+	3	3	9	14	19	69	87	107	b4517	gnsA	1051290	1051463	equal	
pORF+_1053108	1053108	1053380	273	+	3	0	1	1	1	2	2	2						FP
pORF+_1057259	1057259	1058479	1221	+	2	1	1	1	1	0	0	0	b0996	torC	1057307	1058479	inside	
pORF+_1058479	1058479	1061025	2547	+	1	0	1	1	1	2	2	2	b0997	torA	1058479	1061025	equal	
pORF+_1064784	1064784	1066049	1266	+	3	0	9	13	29	73	84	178	b1002	agp	1064808	1066049	inside	
pORF+_1071008	1071008	1071388	381	+	2	0	1	2	3	3	29	55						FP
pORF+_1073438	1073438	1074103	666	+	2	0	0	0	1	0	0	2	b1013	rutR	1073465	1074103	inside	
pORF+_1078528	1078528	1080036	1509	+	1	0	2	3	4	4	9	16	b1015	putP	1078528	1080036	equal	
pORF+_1081466	1081466	1082593	1128	+	2	5	25	39	55	404	483	577	b1018	efeO	1081466	1082593	equal	
pORF+_1082599	1082599	1083870	1272	+	1	0	0	0	1	0	0	2	b1019	efeB	1082599	1083870	equal	
pORF+_1084215	1084215	1085279	1065	+	3	1	1	1	1	0	0	0	b1020	phoH	1084215	1085279	equal	
pORF+_1085442	1085442	1085648	207	+	3	0	1	1	1	7	7	7						FP
pORF+_1086032	1086032	1086214	183	+	2	0	0	1	2	0	4	8						FP
pORF+_1093034	1093034	1093156	123	+	2	0	1	1	1	4	4	4						FP
pORF+_1094710	1094710	1095069	360	+	1	0	1	1	1	2	2	2	b1028	ymdE	1094728	1095069	inside	
pORF+_1097070	1097070	1098047	978	+	3	2	12	22	31	117	186	245	b1033	ghrA	1097109	1098047	inside	
pORF+_1098102	1098102	1098839	738	+	3	1	10	14	18	106	124	143	b1034	ycdX	1098102	1098839	equal	
pORF+_1098863	1098863	1099417	555	+	2	4	9	11	14	54	61	68	b1035	ycdY	1098863	1099417	equal	
pORF+_1105043	1105043	1105576	534	+	2	0	1	4	9	2	9	23	b1045	ymdB	1105043	1105576	equal	
pORF+_1105509	1105509	1106999	1491	+	3	0	0	0	1	0	0	2	b1046	ymdC	1105578	1106999	inside	
pORF+_1108540	1108540	1110093	1554	+	1	19	37	57	82	294	416	558	b1048	mdoG	1108558	1110093	inside	
pORF+_1110056	1110056	1112629	2574	+	2	0	4	11	20	58	83	122	b1049	mdoH	1110086	1112629	inside	
pORF+_1112089	1112089	1112274	186	+	1	0	1	1	1	3	3	3						FP

pORF+_1115976	1115976	1117082	1107	+	3	0	1	2	2	2	5	5	b1055	yceA	1116030	1117082	inside	
pORF+_1124785	1124785	1125369	585	+	1	1	1	2	3	0	4	6	b1066	rimJ	1124785	1125369	equal	
pORF+_1125380	1125380	1126027	648	+	2	3	13	19	31	254	281	341	b1067	yceH	1125380	1126027	equal	
pORF+_1125996	1125996	1126952	957	+	3	0	1	2	5	16	18	27	b1068	yceM	1126029	1126952	inside	
pORF+_1127023	1127023	1128597	1575	+	1	0	0	0	1	0	0	2	b1069	yceN	1127062	1128597	inside	
pORF+_1131797	1131797	1133005	1209	+	2	0	3	3	3	11	11	11	b1076	flgE	1131797	1133005	equal	
pORF+_1133025	1133025	1133780	756	+	3	0	1	1	1	2	2	2	b1077	flgF	1133025	1133780	equal	
pORF+_1134772	1134772	1135485	714	+	1	0	2	4	4	12	16	16	b1079	flgH	1134787	1135485	inside	
pORF+_1135494	1135494	1136594	1101	+	3	0	1	1	1	3	3	3	b1080	flgI	1135497	1136594	inside	
pORF+_1137601	1137601	1139244	1644	+	1	0	2	2	2	13	13	13	b1082	flgK	1137601	1139244	equal	
pORF+_1139256	1139256	1140209	954	+	3	0	1	1	1	6	6	6	b1083	flgL	1139256	1140209	equal	
pORF+_1141049	1141049	1141417	369	+	2	0	1	1	1	2	2	2						FP
pORF+_1144163	1144163	1145122	960	+	2	9	11	18	24	13	35	52	b1086	rluC	1144163	1145122	equal	
pORF+_1146017	1146017	1146538	522	+	2	5	5	9	13	0	16	31	b1088	yceD	1146017	1146538	equal	
pORF+_1146590	1146590	1146763	174	+	2	5	18	23	29	1694	1814	1947	b1089	rpmF	1146590	1146763	equal	
pORF+_1146844	1146844	1147914	1071	+	1	0	1	2	2	2	4	4	b1090	plsX	1146844	1147914	equal	
pORF+_1147982	1147982	1148935	954	+	2	8	21	31	41	233	304	373	b1091	fabH	1147982	1148935	equal	
pORF+_1148379	1148379	1148549	171	+	3	0	1	1	1	6	6	6						FP
pORF+_1148951	1148951	1149880	930	+	2	14	31	51	64	1084	1257	1402	b1092	fabD	1148951	1149880	equal	
pORF+_1149893	1149893	1150627	735	+	2	12	66	78	90	3388	3526	3649	b1093	fabG	1149893	1150627	equal	
pORF+_1150838	1150838	1151074	237	+	2	2	9	14	18	262	405	546	b1094	acpP	1150838	1151074	equal	
pORF+_1151162	1151162	1152403	1242	+	2	13	29	41	54	472	559	643	b1095	fabF	1151162	1152403	equal	
pORF+_1153335	1153335	1154357	1023	+	3	0	0	1	2	0	5	11	b1097	yceG	1153335	1154357	equal	
pORF+_1154347	1154347	1154988	642	+	1	3	7	9	13	20	26	34	b1098	tmk	1154347	1154988	equal	
pORF+_1154985	1154985	1155989	1005	+	3	0	0	1	2	0	3	8	b1099	holB	1154985	1155989	equal	
pORF+_1155940	1155940	1156797	858	+	1	3	3	5	9	0	5	18	b1100	ycfH	1156000	1156797	inside	
pORF+_1157092	1157092	1158525	1434	+	1	10	16	31	43	38	179	419	b1101	ptsG	1157092	1158525	equal	
pORF+_1161090	1161090	1161467	378	+	3	3	10	14	19	255	275	298	b1103	hinT	1161108	1161467	inside	
pORF+_1161470	1161470	1161847	378	+	2	0	0	1	1	0	3	3	b1104	ycfL	1161470	1161847	equal	
pORF+_1161858	1161858	1162502	645	+	3	3	3	7	11	0	15	36	b1105	ycfM	1161861	1162502	inside	
pORF+_1163318	1163318	1164343	1026	+	2	2	3	6	9	3	12	19	b1107	nagZ	1163318	1164343	equal	
pORF+_1164309	1164309	1164908	600	+	3	3	6	12	18	45	79	112	b1108	ycfP	1164366	1164908	inside	
pORF+_1165281	1165281	1166612	1332	+	3	11	15	35	49	32	127	200	b1109	ndh	1165308	1166612	inside	
pORF+_1167084	1167084	1167254	171	+	3	0	1	1	1	2	2	2						FP
pORF+_1168296	1168296	1168553	258	+	3	0	1	6	10	5	25	47	b1112	bhsA	1168296	1168553	equal	
pORF+_1171043	1171043	1171537	495	+	2	0	1	1	1	3	3	3						FP
pORF+_1175701	1175701	1176543	843	+	1	3	10	14	18	227	240	254	b1117	lolD	1175842	1176543	inside	
pORF+_1176543	1176543	1177787	1245	+	3	2	2	3	4	0	2	4	b1118	lolE	1176543	1177787	equal	
pORF+_1177756	1177756	1178727	972	+	1	0	0	1	1	0	2	2	b1119	nagK	1177816	1178727	inside	
pORF+_1178743	1178743	1179582	840	+	1	0	3	6	14	38	53	77	b1120	cobB	1178743	1179582	equal	
pORF+_1185025	1185025	1186293	1269	+	1	1	7	15	26	49	76	149	b1127	pepT	1185067	1186293	inside	
pORF+_1194346	1194346	1195596	1251	+	1	23	124	179	227	8955	10305	11876	b1136	icd	1194346	1195596	equal	
pORF+_1200068	1200068	1200175	108	+	2	0	1	1	1	15	15	15						FP
pORF+_1205315	1205315	1206145	831	+	2	0	1	1	1	6	6	6	b1152	ymfP	1205366	1206145	inside	
pORF+_1206136	1206136	1206720	585	+	1	0	1	1	1	2	2	2	b1153	ymfQ	1206136	1206720	equal	
pORF+_1210636	1210636	1210800	165	+	1	3	31	37	41	2612	2962	3402	b4519	icdC	1210636	1210800	equal	

pORF+_1215291	1215291	1215563	273	+	3	0	0	0	1	0	0	2	b1165	yngA	1215291	1215563	equal	
pORF+_1215592	1215592	1215858	267	+	1	0	0	1	1	0	2	2	b1166	ariR	1215592	1215858	equal	
pORF+_1225823	1225823	1226191	369	+	2	0	1	2	3	5	9	14	b1177	ycgJ	1225823	1226191	equal	
pORF+_1226904	1226904	1227230	327	+	3	0	1	5	7	7	19	24	b1179	ycgL	1226904	1227230	equal	
pORF+_1227302	1227302	1227961	660	+	2	0	1	4	7	2	9	22	b1180	ycgM	1227302	1227961	equal	
pORF+_1230409	1230409	1231677	1269	+	1	0	0	0	1	0	0	2	b1184	umuC	1230409	1231677	equal	
pORF+_1232381	1232381	1232743	363	+	2	0	1	1	1	2	2	2						FP
pORF+_1234137	1234137	1234880	744	+	3	4	7	13	17	16	36	54	b1187	fadR	1234161	1234880	inside	
pORF+_1236788	1236788	1238092	1305	+	2	2	3	8	14	4	15	38	b1189	dadA	1236794	1238092	inside	
pORF+_1238102	1238102	1239172	1071	+	2	0	1	1	2	3	3	6	b1190	dadX	1238102	1239172	equal	
pORF+_1240458	1240458	1240586	129	+	3	0	1	2	2	4	13	13						FP
pORF+_1242289	1242289	1243014	726	+	1	0	4	4	4	41	41	41	b1193	emtA	1242403	1243014	inside	
pORF+_1250280	1250280	1252208	1929	+	3	0	1	2	2	7	9	9	b1201	dhaR	1250289	1252208	inside	
pORF+_1254016	1254016	1254156	141	+	1	0	1	1	1	11	11	11						FP
pORF+_1256914	1256914	1257042	129	+	1	0	1	1	1	2	2	2						FP
pORF+_1258014	1258014	1258292	279	+	3	0	0	0	1	0	0	5	b1205	ychH	1258014	1258292	equal	
pORF+_1262739	1262739	1264193	1455	+	3	0	0	1	1	0	2	2	b1210	hemA	1262937	1264193	inside	
pORF+_1264235	1264235	1265317	1083	+	2	5	9	15	19	105	120	129	b1211	prfA	1264235	1265317	equal	
pORF+_1265317	1265317	1266150	834	+	1	0	0	0	1	0	0	2	b1212	prmC	1265317	1266150	equal	
pORF+_1267388	1267388	1268242	855	+	2	14	49	66	84	1781	2039	2303	b1215	kdsA	1267388	1268242	equal	
pORF+_1271342	1271342	1271572	231	+	2	0	0	1	2	0	2	7	b1217	chaB	1271342	1271572	equal	
pORF+_1279087	1279087	1282830	3744	+	1	1	1	1	2	0	0	2	b1224	narG	1279087	1282830	equal	
pORF+_1282139	1282139	1282186	48	+	2	1	1	1	1	0	0	0						
pORF+_1282827	1282827	1284365	1539	+	3	1	2	3	3	3	5	5	b1225	narH	1282827	1284365	equal	
pORF+_1284362	1284362	1285072	711	+	2	0	0	2	2	0	5	5	b1226	narJ	1284362	1285072	equal	
pORF+_1288429	1288429	1289373	945	+	1	0	0	2	3	0	5	7	b1234	rssA	1288429	1289373	equal	
pORF+_1289465	1289465	1290478	1014	+	2	0	0	1	3	0	3	9	b1235	rssB	1289465	1290478	equal	
pORF+_1290680	1290680	1291588	909	+	2	11	33	49	64	720	802	899	b1236	galU	1290680	1291588	equal	
pORF+_1292750	1292750	1293367	618	+	2	4	6	8	8	7	12	12	b1238	tdk	1292750	1293367	equal	
pORF+_1299134	1299134	1300837	1704	+	2	32	122	145	182	7656	7763	8049	b1243	oppA	1299206	1300837	inside	
pORF+_1300923	1300923	1301843	921	+	3	0	0	1	2	0	3	6	b1244	oppB	1300923	1301843	equal	
pORF+_1302778	1302778	1303791	1014	+	1	0	3	4	6	38	41	48	b1246	oppD	1302778	1303791	equal	
pORF+_1303788	1303788	1304792	1005	+	3	0	4	9	11	15	26	30	b1247	oppF	1303788	1304792	equal	
pORF+_1309062	1309062	1309832	771	+	3	0	1	6	10	12	35	45	b1252	tonB	1309113	1309832	inside	
pORF+_1312044	1312044	1312682	639	+	3	0	1	6	10	6	48	69	b1256	ompW	1312044	1312682	equal	
pORF+_1317157	1317157	1317351	195	+	1	0	0	1	1	0	3	3						FP
pORF+_1320540	1320540	1320896	357	+	3	0	0	1	1	0	2	2						FP
pORF+_1322086	1322086	1322742	657	+	1	2	6	12	20	71	92	132	b1267	yciO	1322122	1322742	inside	
pORF+_1324876	1324876	1325751	876	+	1	5	6	12	18	3	18	33	b1269	rhuB	1324876	1325751	equal	
pORF+_1327356	1327356	1328405	1050	+	3	2	10	23	33	104	170	234	b1272	sohB	1327356	1328405	equal	
pORF+_1329030	1329030	1331669	2640	+	3	20	35	53	74	129	186	271	b1274	topA	1329072	1331669	inside	
pORF+_1331879	1331879	1332853	975	+	2	6	9	20	28	35	79	111	b1275	cysB	1331879	1332853	equal	
pORF+_1333855	1333855	1336530	2676	+	1	4	21	46	88	108	250	630	b1276	acnA	1333855	1336530	equal	
pORF+_1338267	1338267	1338575	309	+	3	0	0	2	4	0	12	27	b1279	yciS	1338267	1338575	equal	
pORF+_1338582	1338582	1339751	1170	+	3	0	2	6	8	7	16	20	b1280	yciM	1338582	1339751	equal	
pORF+_1339885	1339885	1340682	798	+	1	2	15	22	29	247	274	300	b1281	pyrF	1339945	1340682	inside	

pORF+_1340679	1340679	1341008	330	+	3	0	2	4	5	6	11	13	b1282	yciH	1340682	1341008	inside	
pORF+_1341741	1341741	1342073	333	+	3	0	1	2	3	2	9	16						FP
pORF+_1353604	1353604	1354068	465	+	1	0	0	1	1	0	2	2						FP
pORF+_1359132	1359132	1359908	777	+	3	0	1	3	5	2	7	16	b1298	puuD	1359144	1359908	inside	
pORF+_1359935	1359935	1360492	558	+	2	0	0	0	2	0	0	5	b1299	puuR	1359935	1360492	equal	
pORF+_1360671	1360671	1362254	1584	+	3	0	1	1	1	3	3	3	b1300	puuC	1360767	1362254	inside	
pORF+_1362256	1362256	1363536	1281	+	1	0	0	1	2	0	5	7	b1301	puuB	1362256	1363536	equal	
pORF+_1363574	1363574	1364839	1266	+	2	0	3	4	5	6	8	11	b1302	puuE	1363574	1364839	equal	
pORF+_1366103	1366103	1366771	669	+	2	5	19	25	30	192	219	248	b1304	pspA	1366103	1366771	equal	
pORF+_1366825	1366825	1367049	225	+	1	0	0	2	2	0	5	5	b1305	pspB	1366825	1367049	equal	
pORF+_1367713	1367713	1368027	315	+	1	0	4	9	12	48	63	76	b1308	pspE	1367713	1368027	equal	
pORF+_1368213	1368213	1369919	1707	+	3	0	1	1	1	2	2	2	b1309	ycjM	1368240	1369919	inside	
pORF+_1369933	1369933	1371225	1293	+	1	1	1	1	1	0	0	0	b1310	ycjN	1369933	1371225	equal	
pORF+_1371335	1371335	1371661	327	+	2	0	0	0	1	0	0	2						FP
pORF+_1374856	1374856	1375911	1056	+	1	1	1	1	1	0	0	0	b1315	ycjS	1374856	1375911	equal	
pORF+_1382141	1382141	1383538	1398	+	2	0	1	7	9	2	22	29	b1321	ycjX	1382141	1383538	equal	
pORF+_1383535	1383535	1384596	1062	+	1	0	0	3	4	0	6	10	b1322	ycjF	1383535	1384596	equal	
pORF+_1384717	1384717	1386285	1569	+	1	1	1	9	19	0	25	58	b1323	tyrR	1384744	1386285	inside	
pORF+_1386912	1386912	1387919	1008	+	3	0	1	1	1	2	2	2	b1325	ycjG	1386954	1387919	inside	
pORF+_1387873	1387873	1388112	240	+	1	0	1	1	1	3	3	3						FP
pORF+_1391230	1391230	1392864	1635	+	1	14	19	26	38	27	44	83	b1329	mppA	1391251	1392864	inside	
pORF+_1394100	1394100	1395116	1017	+	3	0	0	46	46	0	158	158	b1331	insH	1394100	1395116	equal	
pORF+_1404003	1404003	1404566	564	+	3	0	0	4	5	0	18	20	b1340	ydaL	1404003	1404566	equal	
pORF+_1406074	1406074	1407057	984	+	1	0	0	0	2	0	0	4	b1342	ydaN	1406074	1407057	equal	
pORF+_1423838	1423838	1423993	156	+	2	0	1	1	1	2	2	2						
pORF+_1425482	1425482	1425637	156	+	2	1	1	1	1	0	0	0	b4570	lomR	1425413	1425622	overlap	
pORF+_1427067	1427067	1430435	3369	+	3	0	0	0	1	0	0	2	b1372	stfR	1427073	1430435	inside	
pORF+_1445540	1445540	1447042	1503	+	2	0	1	1	1	7	7	7	b1385	feaB	1445543	1447042	inside	
pORF+_1456982	1456982	1458505	1524	+	2	0	1	1	1	46	46	46	b1395	paaH	1457078	1458505	inside	
pORF+_1458917	1458917	1460122	1206	+	2	0	2	2	2	4	4	4	b1397	paaJ	1458917	1460122	equal	
pORF+_1461563	1461563	1462513	951	+	2	0	1	2	3	8	12	17	b1399	paaX	1461563	1462513	equal	
pORF+_1462495	1462495	1463085	591	+	1	0	1	2	3	13	15	17	b1400	paaY	1462495	1463085	equal	
pORF+_1463416	1463416	1465974	2559	+	1	0	1	1	1	2	2	2	b4492	ydbA	1463416	1465928	inside	
pORF+_1465082	1465082	1465315	234	+	2	0	1	1	1	2	2	2						FP
pORF+_1472245	1472245	1473105	861	+	1	0	7	10	17	41	52	99	b1406	ydbC	1472245	1473105	equal	
pORF+_1473162	1473162	1475474	2313	+	3	2	2	2	2	0	0	0	b1407	ydbD	1473168	1475474	inside	
pORF+_1477205	1477205	1477492	288	+	2	0	1	1	1	3	3	3						FP
pORF+_1479888	1479888	1480181	294	+	3	0	1	1	1	5	5	5						FP
pORF+_1481085	1481085	1484987	3903	+	3	5	7	19	29	35	64	93	b1413	hrpA	1481085	1484987	equal	
pORF+_1485259	1485259	1486059	801	+	1	0	4	12	23	15	39	82	b1414	ydcF	1485259	1486059	equal	
pORF+_1486256	1486256	1487695	1440	+	2	12	74	91	116	1782	1857	2054	b1415	aldA	1486256	1487695	equal	
pORF+_1490494	1490494	1492134	1641	+	1	0	5	6	6	18	20	20	b1421	trg	1490494	1492134	equal	
pORF+_1493312	1493312	1494655	1344	+	2	0	0	0	1	0	0	3	b1423	ydcJ	1493312	1494655	equal	
pORF+_1494880	1494880	1496535	1656	+	1	6	10	19	27	16	41	69	b1424	mdoD	1494880	1496535	equal	
pORF+_1496947	1496947	1497501	555	+	1	0	1	3	3	2	7	7	b1427	rimL	1496962	1497501	inside	
pORF+_1499586	1499586	1500179	594	+	3	6	13	19	23	45	58	71	b1430	tehB	1499586	1500179	equal	

pORF+_1500481	1500481	1501149	669	+	1	0	9	19	29	114	154	256	b1431	ydcL	1500481	1501149	equal	
pORF+_1503247	1503247	1503369	123	+	1	0	1	1	1	6	6	6						FP
pORF+_1504763	1504763	1506766	2004	+	2	0	0	6	6	0	15	15	b1435	ydcP	1504805	1506766	inside	
pORF+_1509678	1509678	1510823	1146	+	3	0	9	9	29	40	40	137	b1440	ydcS	1509678	1510823	equal	
pORF+_1510841	1510841	1511854	1014	+	2	2	2	2	3	0	0	3	b1441	ydcT	1510841	1511854	equal	
pORF+_1513602	1513602	1515026	1425	+	3	0	18	18	18	128	128	128	b1444	ydcW	1513602	1515026	equal	
pORF+_1515672	1515672	1515905	234	+	3	1	6	9	12	111	140	156	b1446	ydcY	1515672	1515905	equal	
pORF+_1516180	1516180	1516350	171	+	1	0	1	1	1	2	2	2						FP
pORF+_1516830	1516830	1517225	396	+	3	0	1	1	1	3	3	3						FP
pORF+_1516958	1516958	1518088	1131	+	2	0	9	14	22	35	45	65	b1449	yncB	1517027	1518088	inside	
pORF+_1518229	1518229	1518951	723	+	1	0	0	1	2	0	2	4	b1450	yncC	1518286	1518951	inside	
pORF+_1520905	1520905	1521183	279	+	1	0	1	1	1	2	2	2						FP
pORF+_1521331	1521331	1522392	1062	+	1	16	76	89	99	2521	2593	2652	b1452	yncE	1521331	1522392	equal	
pORF+_1524964	1524964	1525176	213	+	1	0	1	2	3	2	17	31	b1455	yncH	1524964	1525176	equal	
pORF+_1531037	1531037	1531309	273	+	2	0	1	2	2	8	10	10	b1461	pptA	1531076	1531309	inside	
pORF+_1535423	1535423	1535626	204	+	2	0	1	1	1	2	2	2						FP
pORF+_1545425	1545425	1546012	588	+	2	3	3	3	3	0	0	0						
pORF+_1546061	1546061	1548472	2412	+	2	7	7	7	7	0	0	0	b1474	fdnG	1545425	1548472	contain	
pORF+_1548485	1548485	1549369	885	+	2	1	1	1	1	0	0	0	b1475	fdnH	1548485	1549369	equal	
pORF+_1554649	1554649	1555080	432	+	1	5	17	22	29	387	406	461	b1482	osmC	1554649	1555080	equal	
pORF+_1557456	1557456	1557656	201	+	3	0	1	1	1	2	2	2						FP
pORF+_1566272	1566272	1566691	420	+	2	0	1	1	1	2	2	2						FP
pORF+_1571340	1571340	1571540	201	+	3	0	1	1	1	2	2	2						FP
pORF+_1577092	1577092	1577223	132	+	1	0	0	1	1	0	2	2						FP
pORF+_1579157	1579157	1579777	621	+	2	0	1	1	1	2	2	2						FP
pORF+_1589268	1589268	1589396	129	+	3	0	1	1	1	2	2	2						FP
pORF+_1599514	1599514	1601049	1536	+	1	0	0	0	6	0	0	22	b1513	lsrA	1599514	1601049	equal	
pORF+_1602071	1602071	1603063	993	+	2	0	1	1	1	2	2	2	b1515	lsrD	1602071	1603063	equal	
pORF+_1603075	1603075	1604097	1023	+	1	0	0	0	8	0	0	29	b1516	lsrB	1603075	1604097	equal	
pORF+_1604124	1604124	1604999	876	+	3	0	2	2	12	8	8	58	b1517	lsrF	1604124	1604999	equal	
pORF+_1605023	1605023	1605313	291	+	2	0	0	0	1	0	0	5	b1518	lsrG	1605023	1605313	equal	
pORF+_1605370	1605370	1606128	759	+	1	0	0	2	6	0	6	19	b1519	tam	1605370	1606128	equal	
pORF+_1607976	1607976	1608524	549	+	3	0	1	1	1	2	2	2						FP
pORF+_1618381	1618381	1618539	159	+	1	0	1	1	1	3	3	3						FP
pORF+_1625526	1625526	1626287	762	+	3	6	19	25	32	816	878	984	b1539	ydfG	1625541	1626287	inside	
pORF+_1626376	1626376	1627062	687	+	1	0	0	2	3	0	4	6	b1540	ydfH	1626376	1627062	equal	
pORF+_1627239	1627239	1627442	204	+	3	6	25	27	27	286	297	297	b1541	ydfZ	1627239	1627442	equal	
pORF+_1631646	1631646	1632236	591	+	3	0	3	3	3	6	6	6	b1545	pinQ	1631646	1632236	equal	
pORF+_1639879	1639879	1640091	213	+	1	0	0	1	1	0	2	2	b1558	cspF	1639879	1640091	equal	
pORF+_1642530	1642530	1642742	213	+	3	0	0	0	1	0	0	2						FP
pORF+_1643757	1643757	1643849	93	+	3	0	0	0	1	0	0	3						FP
pORF+_1645958	1645958	1646365	408	+	2	0	6	7	8	22	24	26	b1570	dicA	1645958	1646365	equal	
pORF+_1652324	1652324	1652473	150	+	2	0	1	1	1	21	21	21						FP
pORF+_1653832	1653832	1654173	342	+	1	0	2	3	10	13	17	43	b1583	ynfB	1653832	1654173	equal	
pORF+_1654208	1654208	1654768	561	+	2	2	4	11	16	7	39	61	b1584	speG	1654208	1654768	equal	
pORF+_1655547	1655547	1655894	348	+	3	0	2	3	5	23	26	32	b1586	ynfD	1655589	1655894	inside	

pORF+_1656093	1656093	1658519	2427	+	3	0	2	2	2	8	8	8	b1587	ynfE	1656093	1658519	equal	
pORF+_1658577	1658577	1661003	2427	+	3	0	4	4	4	13	13	13	b1588	ynfF	1658580	1661003	inside	
pORF+_1661014	1661014	1661631	618	+	1	0	3	3	3	40	40	40	b1589	ynfG	1661014	1661631	equal	
pORF+_1661027	1661027	1661383	357	+	2	0	1	1	1	2	2	2						FP
pORF+_1662521	1662521	1663144	624	+	2	0	0	1	1	0	3	3	b1591	dmsD	1662530	1663144	inside	
pORF+_1669373	1669373	1669708	336	+	2	0	1	2	2	16	18	18	b1597	asr	1669400	1669708	inside	
pORF+_1669984	1669984	1670805	822	+	1	0	0	0	1	0	0	2	b1598	ydgD	1669984	1670805	equal	
pORF+_1676451	1676451	1677395	945	+	3	15	46	63	84	688	789	889	b1604	ydgH	1676451	1677395	equal	
pORF+_1680123	1680123	1680902	780	+	3	0	1	3	5	6	10	16	b1608	rstA	1680183	1680902	inside	
pORF+_1680906	1680906	1682207	1302	+	3	0	0	0	1	0	0	2	b1609	rstB	1680906	1682207	equal	
pORF+_1682271	1682271	1683212	942	+	3	0	0	1	2	0	3	5	b1610	tus	1682283	1683212	inside	
pORF+_1682888	1682888	1683073	186	+	2	0	1	1	1	2	2	2						FP
pORF+_1686522	1686522	1687775	1254	+	3	13	25	42	56	266	327	382	b1613	manA	1686600	1687775	inside	
pORF+_1687876	1687876	1689384	1509	+	1	11	45	62	90	502	568	690	b1614	ydgA	1687876	1689384	equal	
pORF+_1697016	1697016	1698971	1956	+	3	1	1	2	3	0	2	4	b1621	malX	1697379	1698971	inside	
pORF+_1698981	1698981	1700153	1173	+	3	0	0	3	3	0	12	12	b1622	malY	1698981	1700153	equal	
pORF+_1700257	1700257	1701258	1002	+	1	3	6	10	14	15	35	56	b1623	add	1700257	1701258	equal	
pORF+_1704943	1704943	1707165	2223	+	1	0	1	7	8	3	22	24	b1629	rsxC	1704943	1707165	equal	
pORF+_1707166	1707166	1708224	1059	+	1	0	0	1	1	0	2	2	b1630	rsxD	1707166	1708224	equal	
pORF+_1707822	1707822	1708031	210	+	3	0	1	1	1	4	4	4						FP
pORF+_1708228	1708228	1708848	621	+	1	0	1	2	2	4	7	7	b1631	rsxG	1708228	1708848	equal	
pORF+_1709547	1709547	1710182	636	+	3	0	0	1	3	0	2	6	b1633	nth	1709547	1710182	equal	
pORF+_1710793	1710793	1712295	1503	+	1	0	1	1	1	5	5	5	b1634	tppB	1710793	1712295	equal	
pORF+_1712401	1712401	1713006	606	+	1	0	14	27	38	345	461	579	b1635	gst	1712401	1713006	equal	
pORF+_1717900	1717900	1718367	468	+	1	4	15	20	24	442	484	546	b1641	slyB	1717900	1718367	equal	
pORF+_1720145	1720145	1722157	2013	+	2	0	1	1	1	6	6	6	b1645	ydhK	1720145	1722157	equal	
pORF+_1724683	1724683	1725780	1098	+	1	6	17	22	22	75	87	87	b1650	nemA	1724683	1725780	equal	
pORF+_1725861	1725861	1726268	408	+	3	3	9	10	11	90	92	94	b1651	gloA	1725861	1726268	equal	
pORF+_1726371	1726371	1727018	648	+	3	0	3	5	6	8	12	14	b1652	rnt	1726371	1727018	equal	
pORF+_1730896	1730896	1731306	411	+	1	0	0	1	1	0	3	3						FP
pORF+_1733402	1733402	1733983	582	+	2	9	17	29	41	152	245	529	b1656	sodB	1733402	1733983	equal	
pORF+_1733544	1733544	1733783	240	+	3	0	0	1	2	0	5	10						FP
pORF+_1735656	1735656	1735880	225	+	3	0	0	1	1	0	12	12						FP
pORF+_1735868	1735868	1736893	1026	+	2	7	23	40	56	304	398	468	b1658	purR	1735868	1736893	equal	
pORF+_1739437	1739437	1740585	1149	+	1	3	6	8	8	12	20	20	b1661	cfa	1739437	1740585	equal	
pORF+_1741481	1741481	1742854	1374	+	2	0	0	1	1	0	2	2	b1663	mdtK	1741481	1742854	equal	
pORF+_1744724	1744724	1745029	306	+	2	2	9	14	20	174	196	236	b1667	ydhR	1744724	1745029	equal	
pORF+_1745155	1745155	1746759	1605	+	1	0	0	2	5	0	5	14	b1668	ydhS	1745155	1746759	equal	
pORF+_1746972	1746972	1747718	747	+	3	0	0	1	1	0	3	3						FP
pORF+_1747262	1747262	1747372	111	+	2	0	0	0	1	0	0	4						FP
pORF+_1753506	1753506	1755134	1629	+	3	30	100	128	163	3861	4233	4842	b1676	pykF	1753722	1755134	inside	
pORF+_1755445	1755445	1755681	237	+	1	3	14	20	26	434	485	530	b1677	lpp	1755445	1755681	equal	
pORF+_1767098	1767098	1768210	1113	+	2	0	0	0	1	0	0	3	b1688	ydiK	1767098	1768210	equal	
pORF+_1767453	1767453	1767605	153	+	3	0	0	0	1	0	0	4						FP
pORF+_1771813	1771813	1772679	867	+	1	0	1	1	1	4	4	4	b1692	ydiB	1771813	1772679	equal	
pORF+_1772710	1772710	1773468	759	+	1	4	11	17	19	126	141	147	b1693	aroD	1772710	1773468	equal	

pORF+_1785469	1785469	1786302	834	+	1	0	2	5	10	10	18	32	b1703	ydiA	1785469	1786302	equal	
pORF+_1786336	1786336	1787505	1170	+	1	2	6	14	24	40	68	101	b1704	aroH	1786459	1787505	inside	
pORF+_1794859	1794859	1795461	603	+	1	0	1	1	1	2	2	2						FP
pORF+_1804391	1804391	1805323	933	+	2	4	12	20	31	50	75	133	b1723	pfkB	1804394	1805323	inside	
pORF+_1805424	1805424	1805714	291	+	3	1	1	1	1	0	0	0	b1724	ydiZ	1805424	1805714	equal	
pORF+_1805820	1805820	1806680	861	+	3	0	0	3	10	0	8	59	b1725	yniA	1805820	1806680	equal	
pORF+_1807404	1807404	1808072	669	+	3	2	2	7	13	0	20	41	b1727	yniC	1807404	1808072	equal	
pORF+_1808958	1808958	1810349	1392	+	3	0	2	12	22	8	85	154	b1729	ydjN	1808958	1810349	equal	
pORF+_1811891	1811891	1814152	2262	+	2	0	29	42	54	315	354	401	b1732	katE	1811891	1814152	equal	
pORF+_1818853	1818853	1819056	204	+	1	0	1	1	1	6	6	6						FP
pORF+_1820482	1820482	1821309	828	+	1	8	30	46	60	704	810	908	b1740	nadE	1820482	1821309	equal	
pORF+_1827297	1827297	1827437	141	+	3	0	1	1	1	4	4	4						FP
pORF+_1830440	1830440	1831258	819	+	2	6	15	23	32	67	105	152	b1749	xthA	1830452	1831258	inside	
pORF+_1831978	1831978	1832817	840	+	1	0	1	1	1	3	3	3	b1751	ydjY	1832140	1832817	inside	
pORF+_1832699	1832699	1832935	237	+	2	0	1	1	1	2	2	2						FP
pORF+_1833539	1833539	1834087	549	+	2	0	0	0	1	0	0	2	b1753	ynjA	1833539	1834087	equal	
pORF+_1834094	1834094	1835263	1170	+	2	0	2	4	4	16	20	20	b1754	ynjB	1834097	1835263	inside	
pORF+_1837476	1837476	1838798	1323	+	3	1	3	4	8	4	6	19	b1757	ynjE	1837491	1838798	inside	
pORF+_1840395	1840395	1841738	1344	+	3	8	55	76	95	1624	1785	1894	b1761	gdhA	1840395	1841738	equal	
pORF+_1844923	1844923	1845459	537	+	1	0	0	0	1	0	0	3						FP
pORF+_1846717	1846717	1848717	2001	+	1	0	0	5	10	0	12	28	b1766	sppA	1846861	1848717	inside	
pORF+_1848884	1848884	1849900	1017	+	2	0	7	13	18	109	139	164	b1767	ansA	1848884	1849900	equal	
pORF+_1849893	1849893	1850552	660	+	3	0	2	2	2	6	6	6	b1768	pncA	1849911	1850552	inside	
pORF+_1860786	1860786	1861790	1005	+	3	31	177	224	268	16899	22404	29432	b1779	gapA	1860795	1861790	inside	
pORF+_1861853	1861853	1862758	906	+	2	12	24	39	48	596	665	745	b1780	yeaD	1861874	1862758	inside	
pORF+_1864932	1864932	1866866	1935	+	3	0	13	28	71	151	221	609	b1783	yeaG	1864932	1866866	equal	
pORF+_1866979	1866979	1868262	1284	+	1	0	0	0	2	0	0	4	b1784	yeaH	1866979	1868262	equal	
pORF+_1871598	1871598	1872101	504	+	3	0	2	5	8	7	19	31	b1787	yeaK	1871598	1872101	equal	
pORF+_1874912	1874912	1875280	369	+	2	0	3	7	12	12	20	40	b1792	yeaO	1874933	1875280	inside	
pORF+_1875610	1875610	1876764	1155	+	1	0	0	1	2	0	3	5	b1794	yeaP	1875739	1876764	inside	
pORF+_1879936	1879936	1881021	1086	+	1	0	0	1	2	0	2	4	b1800	yeaU	1879936	1881021	equal	
pORF+_1887333	1887333	1887521	189	+	3	0	1	1	1	2	2	2						FP
pORF+_1891343	1891343	1891735	393	+	2	3	6	10	14	20	67	99	b1809	yoaB	1891391	1891735	inside	
pORF+_1892097	1892097	1892456	360	+	3	0	2	2	2	5	5	5	b1810	yoaC	1892097	1892456	equal	
pORF+_1892829	1892829	1894190	1362	+	3	0	0	3	4	0	10	12	b1812	pabB	1892829	1894190	equal	
pORF+_1894194	1894194	1894772	579	+	3	0	0	0	1	0	0	2	b1813	nudL	1894194	1894772	equal	
pORF+_1894956	1894956	1896320	1365	+	3	6	6	9	9	0	18	18	b1814	sdaA	1894956	1896320	equal	
pORF+_1899311	1899311	1899664	354	+	2	0	0	0	1	0	0	4						FP
pORF+_1900072	1900072	1901043	972	+	1	9	41	59	76	1306	1692	2146	b1817	manX	1900072	1901043	equal	
pORF+_1901106	1901106	1901906	801	+	3	0	0	0	1	0	0	3	b1818	manY	1901106	1901906	equal	
pORF+_1901910	1901910	1902770	861	+	3	4	6	15	24	55	192	452	b1819	manZ	1901910	1902770	equal	
pORF+_1906949	1906949	1907188	240	+	2	0	0	1	2	0	2	4	b4536	yobH	1906949	1907188	equal	
pORF+_1914282	1914282	1915565	1284	+	3	0	1	1	1	2	2	2	b1833	yebS	1914282	1915565	equal	
pORF+_1915492	1915492	1918167	2676	+	1	1	1	5	12	0	8	28	b1834	yebT	1915534	1918167	inside	
pORF+_1918241	1918241	1919686	1446	+	2	0	0	2	5	0	5	11	b1835	rsmF	1918247	1919686	inside	
pORF+_1919789	1919789	1920040	252	+	2	0	2	2	4	13	13	19	b1836	yebV	1919804	1920040	inside	

pORF+_1923045	1923045	1923362	318	+	3	1	1	1	1	0	0	0	b1842	holE	1923132	1923362	inside	
pORF+_1923705	1923705	1923983	279	+	3	0	1	1	1	2	2	2						FP
pORF+_1928905	1928905	1930083	1179	+	1	11	37	53	65	906	988	1056	b1849	purT	1928905	1930083	equal	
pORF+_1934676	1934676	1935545	870	+	3	1	4	5	8	12	14	22	b1853	yebK	1934676	1935545	equal	
pORF+_1935532	1935532	1937115	1584	+	1	12	53	75	98	1517	1634	1802	b1854	pykA	1935673	1937115	inside	
pORF+_1935836	1935836	1936081	246	+	2	0	1	1	1	2	2	2						FP
pORF+_1940686	1940686	1941441	756	+	1	1	5	11	18	20	36	64	b1858	znuC	1940686	1941441	equal	
pORF+_1941438	1941438	1942223	786	+	3	0	1	1	1	3	3	3	b1859	znuB	1941438	1942223	equal	
pORF+_1944552	1944552	1944686	135	+	3	0	0	0	1	0	0	5						FP
pORF+_1948823	1948823	1949422	600	+	2	1	5	6	8	19	21	27	b1867	yecD	1948856	1949422	inside	
pORF+_1949419	1949419	1950237	819	+	1	0	0	2	2	0	4	4	b1868	yecE	1949419	1950237	equal	
pORF+_1950131	1950131	1950685	555	+	2	0	1	1	1	3	3	3	b1869	yecN	1950290	1950685	inside	
pORF+_1950726	1950726	1951469	744	+	3	3	5	9	15	16	34	55	b1870	cmoA	1950726	1951469	equal	
pORF+_1951466	1951466	1952437	972	+	2	0	0	3	7	0	7	20	b1871	cmoB	1951466	1952437	equal	
pORF+_1958086	1958086	1959819	1734	+	1	12	25	45	70	133	238	330	b1876	argS	1958086	1959819	equal	
pORF+_1961294	1961294	1961557	264	+	2	0	0	1	1	0	3	3						FP
pORF+_1962788	1962788	1963552	765	+	2	0	1	1	1	2	2	2						FP
pORF+_1963021	1963021	1963092	72	+	1	0	1	1	1	3	3	3						FP
pORF+_1968187	1968187	1968546	360	+	1	0	1	1	1	2	2	2						FP
pORF+_1972943	1972943	1973059	117	+	2	0	1	1	1	2	2	2						FP
pORF+_1977777	1977777	1978205	429	+	3	0	0	1	2	0	2	5	b1895	uspC	1977777	1978205	equal	
pORF+_1982168	1982168	1982329	162	+	2	0	1	2	3	3	21	39						FP
pORF+_1986725	1986725	1987237	513	+	2	6	13	21	28	206	254	293	b1905	ftnA	1986740	1987237	inside	
pORF+_1993842	1993842	1994066	225	+	3	0	4	5	7	28	32	87	b1915	yecF	1993842	1994066	equal	
pORF+_1994204	1994204	1994497	294	+	2	0	0	1	2	0	5	10						FP
pORF+_1998807	1998807	1999010	204	+	3	0	1	1	1	3	3	3						FP
pORF+_2004180	2004180	2005667	1488	+	3	0	1	4	7	2	9	20	b1927	amyA	2004180	2005667	equal	
pORF+_2007503	2007503	2007736	234	+	2	0	2	4	6	61	69	79	b1930	yedF	2007503	2007736	equal	
pORF+_2011253	2011253	2012911	1659	+	2	0	1	4	4	2	8	8	b1938	fliF	2011253	2012911	equal	
pORF+_2012904	2012904	2013899	996	+	3	0	1	3	4	3	12	14	b1939	fliG	2012904	2013899	equal	
pORF+_2013871	2013871	2014578	708	+	1	0	2	2	2	4	4	4	b1940	fliH	2013892	2014578	inside	
pORF+_2014578	2014578	2015951	1374	+	3	1	2	2	2	3	3	3	b1941	fliI	2014578	2015951	equal	
pORF+_2017642	2017642	2018106	465	+	1	0	1	1	1	10	10	10	b1944	fliL	2017642	2018106	equal	
pORF+_2019112	2019112	2019525	414	+	1	0	2	3	3	10	12	12	b1946	fliN	2019112	2019525	equal	
pORF+_2021992	2021992	2022615	624	+	1	0	1	1	1	3	3	3	b1951	rcsA	2021992	2022615	equal	
pORF+_2022995	2022995	2023237	243	+	2	0	0	0	5	0	0	61	b1953	yodD	2023010	2023237	inside	
pORF+_2023535	2023535	2024350	816	+	2	0	0	1	6	0	9	44	b1955	yedP	2023535	2024350	equal	
pORF+_2032045	2032045	2032560	516	+	1	5	9	17	17	20	44	44	b4496	yedS	2032075	2033267	contain	
pORF+_2032863	2032863	2033267	405	+	3	4	4	4	4	0	0	0	b4496	yedS	2032075	2033267	contain_f3	
pORF+_2033859	2033859	2034710	852	+	3	2	8	19	32	64	105	183	b1967	hchA	2033859	2034710	equal	
pORF+_2036980	2036980	2037393	414	+	1	0	0	4	7	0	14	28	b1970	yedX	2036980	2037393	equal	
pORF+_2037502	2037502	2038506	1005	+	1	0	0	1	6	0	2	13	b1971	yedY	2037502	2038506	equal	
pORF+_2039399	2039399	2040049	651	+	2	5	24	35	63	962	1150	3574	b1973	yodA	2039399	2040049	equal	
pORF+_2041636	2041636	2042472	837	+	1	0	0	2	2	0	5	5	b1976	mtfA	2041675	2042472	inside	
pORF+_2042887	2042887	2050038	7152	+	1	0	0	0	1	0	0	4	b1978	yeeJ	2042962	2050038	inside	
pORF+_2051667	2051667	2052983	1317	+	3	0	1	1	1	5	5	5	b1981	shiA	2051667	2052983	equal	



pORF+_2052929	2052929	2054539	1611	+	2	2	4	22	35	23	86	145	b1982	amn	2053085	2054539	inside	
pORF+_2054882	2054882	2055598	717	+	2	6	21	26	29	262	281	291	b1983	yeeN	2054882	2055598	equal	
pORF+_2068268	2068268	2068528	261	+	2	3	3	3	3	0	0	0	b4582	yoeA	2066659	2066962	inside	
pORF+_2069407	2069407	2072682	3276	+	1	0	8	17	22	45	69	83	b2000	flu	2069563	2072682	inside	
pORF+_2072534	2072534	2072668	135	+	2	0	1	1	1	2	2	2						FP
pORF+_2080708	2080708	2082207	1500	+	1	0	0	5	7	0	12	17	b2011	sbcB	2080780	2082207	inside	
pORF+_2088177	2088177	2089115	939	+	3	5	32	48	62	1580	1682	1757	b2019	hisG	2088216	2089115	inside	
pORF+_2089112	2089112	2090425	1314	+	2	5	33	47	62	818	896	988	b2020	hisD	2089121	2090425	inside	
pORF+_2090127	2090127	2090291	165	+	3	1	1	1	1	0	0	0						FP
pORF+_2090422	2090422	2091492	1071	+	1	2	10	24	37	213	303	358	b2021	hisC	2090422	2091492	equal	
pORF+_2091489	2091489	2092559	1071	+	3	0	15	31	45	210	287	346	b2022	hisB	2091492	2092559	inside	
pORF+_2092559	2092559	2093149	591	+	2	0	4	16	24	55	115	155	b2023	hisH	2092559	2093149	equal	
pORF+_2093146	2093146	2093886	741	+	1	0	12	24	32	300	349	385	b2024	hisA	2093149	2093886	inside	
pORF+_2093868	2093868	2094644	777	+	3	0	11	23	35	224	284	349	b2025	hisF	2093868	2094644	equal	
pORF+_2094638	2094638	2095249	612	+	2	0	5	10	13	19	45	61	b2026	hisI	2094638	2095249	equal	
pORF+_2096138	2096138	2096368	231	+	2	0	1	1	1	3	3	3						FP
pORF+_2111895	2111895	2112056	162	+	3	0	1	1	1	6	6	6						FP
pORF+_2122230	2122230	2122451	222	+	3	0	0	0	1	0	0	4						FP
pORF+_2123944	2123944	2124240	297	+	1	0	1	1	1	7	7	7						FP
pORF+_2131703	2131703	2132068	366	+	2	0	1	1	1	3	3	3						FP
pORF+_2135860	2135860	2137509	1650	+	1	0	1	3	4	2	21	32	b2063	yegH	2135926	2137509	inside	
pORF+_2144000	2144000	2144119	120	+	2	0	1	1	1	2	2	2						FP
pORF+_2145635	2145635	2147050	1416	+	2	0	0	1	1	0	2	2	b2069	yegD	2145698	2147050	inside	
pORF+_2151893	2151893	2153287	1395	+	2	0	0	3	6	0	6	12	b2074	mdtA	2152040	2153287	inside	
pORF+_2153287	2153287	2156409	3123	+	1	0	0	1	2	0	2	4	b2075	mdtB	2153287	2156409	equal	
pORF+_2160900	2160900	2162303	1404	+	3	0	1	1	1	2	2	2	b2078	baeS	2160900	2162303	equal	
pORF+_2162300	2162300	2163022	723	+	2	2	3	5	8	14	19	25	b2079	baeR	2162300	2163022	equal	
pORF+_2163174	2163174	2163545	372	+	3	0	5	6	10	30	34	81	b2080	yegP	2163213	2163545	inside	
pORF+_2163692	2163692	2165053	1362	+	2	7	16	29	38	141	204	249	b2081	yegQ	2163692	2165053	equal	
pORF+_2166736	2166736	2167635	900	+	1	0	1	1	1	2	2	2	b2086	yegS	2166736	2167635	equal	
pORF+_2168251	2168251	2168559	309	+	1	0	0	5	10	0	10	35	b2088	insE	2168251	2168559	equal	
pORF+_2168556	2168556	2169422	867	+	3	0	0	0	5	0	0	10	b2089	insF	2168556	2169422	equal	
pORF+_2178117	2178117	2179121	1005	+	3	0	1	3	3	3	7	7	b2099	yegU	2178117	2179121	equal	
pORF+_2184306	2184306	2184479	174	+	3	0	1	1	1	2	2	2						FP
pORF+_2184802	2184802	2185320	519	+	1	1	1	1	2	0	0	3	b2107	yohN	2184982	2185320	inside	
pORF+_2192313	2192313	2194355	2043	+	3	25	47	79	112	340	511	685	b2114	metG	2192322	2194355	inside	
pORF+_2198301	2198301	2201933	3633	+	3	0	1	1	1	4	4	4	b2118	yehI	2198301	2201933	equal	
pORF+_2203576	2203576	2205996	2421	+	1	1	1	2	2	0	3	3	b2120	yehM	2203717	2205996	inside	
pORF+_2204303	2204303	2204539	237	+	2	0	1	1	1	2	2	2						FP
pORF+_2207098	2207098	2208966	1869	+	1	1	2	2	2	5	5	5	b2122	yehQ	2207122	2209122	contain	
pORF+_2214154	2214154	2214858	705	+	1	0	0	1	1	0	4	4						FP
pORF+_2220174	2220174	2221922	1749	+	3	1	10	25	37	75	136	178	b2133	dld	2220207	2221922	inside	
pORF+_2220481	2220481	2220630	150	+	1	0	2	2	2	6	6	6						FP
pORF+_2229866	2229866	2230750	885	+	2	10	12	20	28	59	88	127	b2143	cdd	2229866	2230750	equal	
pORF+_2230900	2230900	2231619	720	+	1	0	1	2	3	3	6	8	b2144	sanA	2230900	2231619	equal	
pORF+_2232055	2232055	2233293	1239	+	1	0	1	1	1	2	2	2	b2146	yehT	2232055	2233293	equal	

pORF+_2241932	2241932	2242768	837	+	2	0	0	7	12	0	20	37	b2154	yeiG	2241932	2242768	equal	
pORF+_2243289	2243289	2244140	852	+	3	0	0	1	1	0	5	5						FP
pORF+_2248862	2248862	2249719	858	+	2	0	5	10	15	10	25	38	b2159	nfo	2248862	2249719	equal	
pORF+_2249394	2249394	2249636	243	+	3	0	1	1	1	2	2	2						FP
pORF+_2252535	2252535	2252750	216	+	3	0	1	1	1	7	7	7						FP
pORF+_2252900	2252900	2253070	171	+	2	0	1	1	1	5	5	5						FP
pORF+_2263217	2263217	2264044	828	+	2	1	16	21	26	899	938	972	b2171	yeiP	2263472	2264044	inside	
pORF+_2265851	2265851	2266837	987	+	2	0	0	3	6	0	6	13	b2173	yeiR	2265851	2266837	equal	
pORF+_2268001	2268001	2268567	567	+	1	0	1	1	1	3	3	3	b2175	spr	2268001	2268567	equal	
pORF+_2270380	2270380	2272200	1821	+	1	2	3	3	8	5	5	19	b2177	yejA	2270386	2272200	inside	
pORF+_2272201	2272201	2273295	1095	+	1	0	1	1	1	2	2	2	b2178	yejB	2272201	2273295	equal	
pORF+_2274274	2274274	2275911	1638	+	1	1	1	2	2	0	2	2	b2180	yejF	2274322	2275911	inside	
pORF+_2278654	2278654	2280414	1761	+	1	0	0	1	1	0	2	2	b2184	yejH	2278654	2280414	equal	
pORF+_2280443	2280443	2280823	381	+	2	10	48	59	69	2014	2224	2439	b2185	rplY	2280539	2280823	inside	
pORF+_2282151	2282151	2282378	228	+	3	4	7	11	14	178	204	219	b2187	yejL	2282151	2282378	equal	
pORF+_2282398	2282398	2284158	1761	+	1	0	0	2	6	0	5	13	b2188	yejM	2282398	2284158	equal	
pORF+_2284885	2284885	2285184	300	+	1	0	1	1	1	4	4	4						FP
pORF+_2288492	2288492	2289169	678	+	2	0	2	4	4	35	41	41	b2193	narP	2288522	2289169	inside	
pORF+_2294163	2294163	2294390	228	+	3	0	0	0	1	0	0	4						FP
pORF+_2299361	2299361	2299504	144	+	2	0	1	1	1	2	2	2						FP
pORF+_2301906	2301906	2302415	510	+	3	4	5	5	5	2	2	2	b2209	eco	2301927	2302415	inside	
pORF+_2305682	2305682	2305837	156	+	2	0	1	1	1	7	7	7						FP
pORF+_2306971	2306971	2307069	99	+	1	0	0	1	1	0	2	2						FP
pORF+_2311510	2311510	2314182	2673	+	1	0	1	11	22	2	41	76	b2216	rcsD	2311510	2314182	equal	
pORF+_2314154	2314154	2314849	696	+	2	7	19	25	30	206	257	289	b2217	rcsB	2314199	2314849	inside	
pORF+_2319888	2319888	2321273	1386	+	3	0	1	1	1	4	4	4	b2220	atoC	2319888	2321273	equal	
pORF+_2322778	2322778	2324100	1323	+	1	0	1	1	1	2	2	2	b2223	atoE	2322778	2324100	equal	
pORF+_2324131	2324131	2325315	1185	+	1	0	1	1	1	2	2	2	b2224	atoB	2324131	2325315	equal	
pORF+_2329207	2329207	2329467	261	+	1	0	1	1	1	5	5	5						FP
pORF+_2337308	2337308	2337493	186	+	2	0	0	0	1	0	0	10						FP
pORF+_2337541	2337541	2338311	771	+	1	3	12	21	31	166	214	252	b2232	ubiG	2337589	2338311	inside	
pORF+_2337647	2337647	2337832	186	+	2	0	1	1	1	2	2	2						FP
pORF+_2342887	2342887	2345172	2286	+	1	20	27	49	69	42	167	278	b2234	nrdA	2342887	2345172	equal	
pORF+_2345175	2345175	2346536	1362	+	3	10	13	25	35	59	114	153	b2235	nrdB	2345406	2346536	inside	
pORF+_2350669	2350669	2352297	1629	+	1	0	7	7	9	53	53	63	b2241	glpA	2350669	2352297	equal	
pORF+_2352059	2352059	2353546	1488	+	2	0	4	4	5	15	15	18	b2242	glpB	2352287	2353546	inside	
pORF+_2356121	2356121	2356588	468	+	2	0	0	1	1	0	6	6						FP
pORF+_2363917	2363917	2365089	1173	+	1	0	1	1	4	2	2	8	b2253	arnB	2363950	2365089	inside	
pORF+_2368930	2368930	2370582	1653	+	1	0	1	1	1	2	2	2	b2257	arnT	2368930	2370582	equal	
pORF+_2370632	2370632	2371300	669	+	2	0	0	0	1	0	0	4	b2258	arnF	2370914	2371300	inside	
pORF+_2379612	2379612	2380547	936	+	3	0	1	6	9	42	54	63	b2268	rbn	2379630	2380547	inside	
pORF+_2380735	2380735	2381946	1212	+	1	0	1	1	1	19	19	19	b2269	elaD	2380735	2381946	equal	
pORF+_2405583	2405583	2406800	1218	+	3	0	7	12	14	73	87	91	b2290	yfbQ	2405583	2406800	equal	
pORF+_2406884	2406884	2407483	600	+	2	0	1	3	7	2	7	17	b2291	yfbR	2406884	2407483	equal	
pORF+_2409506	2409506	2409676	171	+	2	0	1	1	1	2	2	2						FP
pORF+_2411492	2411492	2412694	1203	+	2	23	49	66	85	1137	1257	1442	b2296	ackA	2411492	2412694	equal	

pORF+_2412769	2412769	2414913	2145	+	1	27	77	101	128	1584	1722	1890	b2297	pta	2412769	2414913	equal	
pORF+_2418643	2418643	2419290	648	+	1	0	0	0	1	0	0	2	b2302	yfcG	2418643	2419290	equal	
pORF+_2419347	2419347	2419709	363	+	3	4	11	17	21	217	248	265	b2303	folX	2419347	2419709	equal	
pORF+_2419730	2419730	2420623	894	+	2	0	3	5	11	17	23	42	b2304	yfcH	2419730	2420623	equal	
pORF+_2427004	2427004	2427774	771	+	1	0	0	0	1	0	0	5						FP
pORF+_2429089	2429089	2429520	432	+	1	0	1	1	1	2	2	2						FP
pORF+_2429608	2429608	2429682	75	+	1	0	1	1	1	2	2	2						FP
pORF+_2438302	2438302	2439537	1236	+	1	0	2	2	2	53	53	53						FP
pORF+_2439726	2439726	2441792	2067	+	3	0	0	3	6	0	11	24	b2324	mnmc	2439786	2441792	inside	
pORF+_2442076	2442076	2442279	204	+	1	0	1	1	1	2	2	2						FP
pORF+_2446628	2446628	2447179	552	+	2	0	1	2	4	4	8	14	b2331	yfcN	2446628	2447179	equal	
pORF+_2448552	2448552	2448629	78	+	3	0	0	0	1	0	0	2						FP
pORF+_2453012	2453012	2453548	537	+	2	0	1	1	1	2	2	2						FP
pORF+_2456756	2456756	2457169	414	+	2	0	1	1	1	3	3	3						FP
pORF+_2459322	2459322	2460668	1347	+	3	5	6	9	13	59	70	85	b2344	fadL	2459328	2460668	inside	
pORF+_2461034	2461034	2462092	1059	+	2	0	0	1	1	0	2	2	b2345	yfdF	2461034	2462092	equal	
pORF+_2463323	2463323	2464255	933	+	2	0	0	0	1	0	0	2	b2347	yfdC	2463323	2464255	equal	
pORF+_2464531	2464531	2465724	1194	+	1	0	1	1	1	2	2	2	b2349	intS	2464567	2465724	inside	
pORF+_2466236	2466236	2467156	921	+	2	1	5	6	7	15	27	37	b2351	yfdH	2466236	2467156	equal	
pORF+_2467153	2467153	2468484	1332	+	1	0	0	2	3	0	9	17	b2352	yfdI	2467153	2468484	equal	
pORF+_2472054	2472054	2472878	825	+	3	0	1	1	1	8	8	8	b2360	yfdQ	2472054	2472878	equal	
pORF+_2472469	2472469	2472621	153	+	1	0	1	1	1	19	19	19						FP
pORF+_2477224	2477224	2478552	1329	+	1	2	2	5	7	0	6	12	b2366	dsdA	2477224	2478552	equal	
pORF+_2481777	2481777	2482391	615	+	3	1	4	9	13	13	26	39	b2369	evgA	2481777	2482391	equal	
pORF+_2482396	2482396	2485989	3594	+	1	2	2	2	2	0	0	0	b2370	evgS	2482396	2485989	equal	
pORF+_2498387	2498387	2499139	753	+	2	0	0	0	3	0	0	6	b2381	ypdB	2498405	2499139	inside	
pORF+_2500243	2500243	2500491	249	+	1	0	0	0	1	0	0	2						FP
pORF+_2500709	2500709	2500873	165	+	2	0	1	1	1	4	4	4						FP
pORF+_2509072	2509072	2509431	360	+	1	0	0	1	2	0	21	42						FP
pORF+_2511025	2511025	2512266	1242	+	1	1	1	2	3	0	2	5	b2393	nupC	2511064	2512266	inside	
pORF+_2512347	2512347	2513465	1119	+	3	0	0	3	3	0	9	9	b2394	insL	2512353	2513465	inside	
pORF+_2516474	2516474	2516833	360	+	2	0	2	2	2	7	7	7	b2398	yfeC	2516489	2516833	inside	
pORF+_2524968	2524968	2525966	999	+	3	0	0	0	2	0	0	5	b2410	yfeH	2524968	2525966	equal	
pORF+_2527130	2527130	2527189	60	+	2	0	1	1	1	2	2	2						FP
pORF+_2529485	2529485	2530246	762	+	2	1	1	1	2	0	0	2	b2413	cysZ	2529485	2530246	equal	
pORF+_2530431	2530431	2531402	972	+	3	14	95	126	168	8794	10213	12269	b2414	cysK	2530431	2531402	equal	
pORF+_2531786	2531786	2532043	258	+	2	4	17	21	25	1611	1756	1959	b2415	ptsH	2531786	2532043	equal	
pORF+_2532088	2532088	2533815	1728	+	1	33	106	149	197	3202	3889	4600	b2416	ptsI	2532088	2533815	equal	
pORF+_2533856	2533856	2534365	510	+	2	9	51	63	80	3385	3830	4353	b2417	crr	2533856	2534365	equal	
pORF+_2534954	2534954	2535283	330	+	2	1	1	1	1	0	0	0						FP
pORF+_2542319	2542319	2542549	231	+	2	0	0	1	2	0	8	16						FP
pORF+_2543795	2543795	2544691	897	+	2	0	2	3	3	11	13	13	b2428	murQ	2543795	2544691	equal	
pORF+_2550374	2550374	2551243	870	+	2	0	0	5	8	0	16	24	b2435	amiA	2550374	2551243	equal	
pORF+_2551247	2551247	2552146	900	+	2	0	0	1	1	0	2	2	b2436	hemF	2551247	2552146	equal	
pORF+_2556793	2556793	2558088	1296	+	1	1	1	1	1	0	0	0	b2442	intZ	2556880	2558088	inside	
pORF+_2561984	2561984	2562394	411	+	2	0	0	2	3	0	4	9	b2449	yffR	2562002	2562394	inside	

pORF+_2562395	2562395	2563354	960	+	2	3	3	7	10	0	14	20	b2450	yffS	2562545	2563354	inside	
pORF+_2572556	2572556	2573101	546	+	2	0	1	1	1	3	3	3						FP
pORF+_2574393	2574393	2575307	915	+	3	0	0	0	1	0	0	6						FP
pORF+_2576688	2576688	2577638	951	+	3	14	34	49	68	176	684	909	b2464	talA	2576688	2577638	equal	
pORF+_2577595	2577595	2579661	2067	+	1	15	48	63	83	354	409	483	b2465	tktB	2577658	2579661	inside	
pORF+_2585617	2585617	2588730	3114	+	1	3	5	6	8	8	11	15	b2470	acrD	2585617	2588730	equal	
pORF+_2589269	2589269	2589625	357	+	2	1	2	4	6	12	23	35	b2471	yffB	2589269	2589625	equal	
pORF+_2589629	2589629	2590756	1128	+	2	3	5	11	16	5	19	34	b2472	dapE	2589629	2590756	equal	
pORF+_2596195	2596195	2596575	381	+	1	0	1	1	2	4	4	11						FP
pORF+_2597862	2597862	2598500	639	+	3	2	4	9	13	6	33	67	b2479	gcvR	2597928	2598500	inside	
pORF+_2598500	2598500	2598970	471	+	2	9	22	30	38	813	865	910	b2480	bcp	2598500	2598970	equal	
pORF+_2604373	2604373	2604942	570	+	1	0	0	1	1	0	5	5						
pORF+_2614116	2614116	2615579	1464	+	3	0	6	15	23	16	40	64	b2494	yfgC	2614116	2615579	equal	
pORF+_2615600	2615600	2615959	360	+	2	3	11	14	18	86	101	118	b2495	yfgD	2615600	2615959	equal	
pORF+_2618100	2618100	2619005	906	+	3	0	1	1	1	3	3	3						FP
pORF+_2619204	2619204	2620256	1053	+	3	8	22	34	46	421	521	613	b2499	purM	2619219	2620256	inside	
pORF+_2620256	2620256	2620894	639	+	2	2	10	14	18	104	115	129	b2500	purN	2620256	2620894	equal	
pORF+_2621060	2621060	2623132	2073	+	2	0	2	14	28	6	44	93	b2501	ppk	2621066	2623132	inside	
pORF+_2623098	2623098	2624678	1581	+	3	0	0	9	14	0	20	38	b2502	ppx	2623137	2624678	inside	
pORF+_2625314	2625314	2625463	150	+	2	0	1	1	1	2	2	2						FP
pORF+_2632254	2632254	2633624	1371	+	3	0	3	7	12	14	26	41	b2509	xseA	2632254	2633624	equal	
pORF+_2637336	2637336	2637737	402	+	3	0	1	1	1	2	2	2						FP
pORF+_2643807	2643807	2644127	321	+	3	0	1	1	1	2	2	2						FP
pORF+_2644898	2644898	2645248	351	+	2	0	1	1	1	2	2	2						FP
pORF+_2648876	2648876	2649040	165	+	2	0	1	1	1	2	2	2						FP
pORF+_2650357	2650357	2651361	1005	+	1	4	14	21	33	123	140	295	b2521	sseA	2650516	2651361	inside	
pORF+_2658776	2658776	2658988	213	+	2	0	1	1	1	2	2	2						FP
pORF+_2661464	2661464	2662267	804	+	2	18	40	48	57	588	620	652	b2533	suhB	2661464	2662267	equal	
pORF+_2663436	2663436	2664737	1302	+	3	0	0	0	2	0	0	5	b2535	csiE	2663457	2664737	inside	
pORF+_2668943	2668943	2669143	201	+	2	0	1	1	1	8	8	8						FP
pORF+_2670069	2670069	2671271	1203	+	3	0	1	1	1	2	2	2	b2542	hcaD	2670069	2671271	equal	
pORF+_2682237	2682237	2683526	1290	+	3	0	0	1	1	0	2	2						
pORF+_2683836	2683836	2685047	1212	+	3	0	3	9	13	23	64	80	b2552	hmp	2683857	2685047	inside	
pORF+_2692063	2692063	2693139	1077	+	1	0	1	1	1	5	5	5						FP
pORF+_2693823	2693823	2695379	1557	+	3	0	1	1	1	2	2	2	b2558	yfhD	2693823	2695379	equal	
pORF+_2696524	2696524	2696592	69	+	1	0	1	1	1	3	3	3						FP
pORF+_2696709	2696709	2697629	921	+	3	0	0	3	4	0	7	9	b2561	yfhH	2696781	2697629	inside	
pORF+_2708442	2708442	2710064	1623	+	3	8	11	17	21	10	30	43	b2574	nadB	2708442	2710064	equal	
pORF+_2710918	2710918	2712252	1335	+	1	3	14	29	41	131	191	236	b2576	srmB	2710918	2712252	equal	
pORF+_2714776	2714776	2715465	690	+	1	0	1	2	3	2	6	8	b2580	ung	2714776	2715465	equal	
pORF+_2716757	2716757	2717176	420	+	2	2	4	5	6	24	31	35	b2582	trxC	2716757	2717176	equal	
pORF+_2717975	2717975	2720635	2661	+	2	0	0	2	9	0	13	37	b2584	yfiQ	2717975	2720635	equal	
pORF+_2720746	2720746	2722104	1359	+	1	4	5	13	21	2	32	56	b2585	pssA	2720749	2722104	inside	
pORF+_2731156	2731156	2731623	468	+	1	0	1	1	1	2	2	2						FP
pORF+_2734168	2734168	2734905	738	+	1	12	23	32	36	130	166	184	b2595	bamD	2734168	2734905	equal	
pORF+_2735176	2735176	2735517	342	+	1	7	17	28	46	70	164	345	b2597	raiA	2735176	2735517	equal	

pORF+_2735767	2735767	2736927	1161	+	1	0	16	22	27	119	166	197	b2599	pheA	2735767	2736927	equal	
pORF+_2740405	2740405	2741631	1227	+	1	0	1	1	1	2	2	2	b2604	yfiN	2740405	2741631	equal	
pORF+_2741647	2741647	2742129	483	+	1	2	3	3	3	10	10	10	b2605	yfiB	2741647	2742129	equal	
pORF+_2745909	2745909	2746775	867	+	3	0	0	0	1	0	0	2	b2611	ypjD	2745984	2746775	inside	
pORF+_2746820	2746820	2748082	1263	+	2	0	1	1	1	2	2	2	b4461	yfjD	2746796	2748082	contain	
pORF+_2747850	2747850	2748026	177	+	3	0	0	0	1	0	0	3						FP
pORF+_2748853	2748853	2749731	879	+	1	0	0	2	2	0	4	4	b2615	nadK	2748853	2749731	equal	
pORF+_2751277	2751277	2751384	108	+	1	0	0	0	1	0	0	2						FP
pORF+_2751627	2751627	2751968	342	+	3	2	2	4	5	0	7	10	b2617	smpA	2751627	2751968	equal	
pORF+_2752918	2752918	2753400	483	+	1	2	2	5	8	0	9	19	b2620	smpB	2752918	2753400	equal	
pORF+_2757007	2757007	2758416	1410	+	1	1	2	2	2	2	2	2	b2625	yfiI	2757007	2758416	equal	
pORF+_2765726	2765726	2766595	870	+	2	0	1	1	1	3	3	3	b2632	yfjP	2765732	2766595	inside	
pORF+_2778082	2778082	2778231	150	+	1	0	0	1	1	0	5	5						FP
pORF+_2779420	2779420	2779713	294	+	1	0	1	1	1	5	5	5						FP
pORF+_2787938	2787938	2789272	1335	+	2	0	0	0	3	0	0	9	b2660	ygaF	2788004	2789272	inside	
pORF+_2789295	2789295	2790743	1449	+	3	0	22	32	54	283	313	495	b2661	gabD	2789295	2790743	equal	
pORF+_2790751	2790751	2792037	1287	+	1	0	18	25	45	212	230	336	b2662	gabT	2790757	2792037	inside	
pORF+_2795542	2795542	2796066	525	+	1	0	0	0	1	0	0	2	b2668	ygaP	2795542	2796066	equal	
pORF+_2798156	2798156	2798497	342	+	2	0	7	13	19	126	161	202	b2672	ygaM	2798156	2798497	equal	
pORF+_2798745	2798745	2798990	246	+	3	0	1	1	1	2	2	2	b2673	nrdH	2798745	2798990	equal	
pORF+_2799370	2799370	2801514	2145	+	1	0	1	1	1	6	6	6	b2675	nrdE	2799370	2801514	equal	
pORF+_2802564	2802564	2804039	1476	+	3	9	20	20	20	151	151	151	b2677	proV	2802837	2804039	inside	
pORF+_2805112	2805112	2806146	1035	+	1	10	15	15	16	135	135	138	b2679	proX	2805154	2806146	inside	
pORF+_2808792	2808792	2809322	531	+	3	2	11	18	26	191	261	309	b2684	mprA	2808792	2809322	equal	
pORF+_2809437	2809437	2810621	1185	+	3	2	5	13	22	18	52	83	b2685	emrA	2809449	2810621	inside	
pORF+_2813601	2813601	2814158	558	+	3	0	0	1	2	0	9	18						FP
pORF+_2815171	2815171	2815353	183	+	1	0	1	1	1	3	3	3						FP
pORF+_2817910	2817910	2818239	330	+	1	0	1	1	1	9	9	9						FP
pORF+_2823854	2823854	2824417	564	+	2	0	1	1	1	2	2	2	b2702	srlA	2823854	2824417	equal	
pORF+_2827069	2827069	2827842	774	+	1	0	0	0	1	0	0	4	b2707	srlR	2827069	2827842	equal	
pORF+_2827835	2827835	2828800	966	+	2	0	3	7	8	10	19	22	b2708	gutQ	2827835	2828800	equal	
pORF+_2833318	2833318	2833566	249	+	1	0	1	1	1	6	6	6						FP
pORF+_2835642	2835642	2836007	366	+	3	0	1	1	1	3	3	3						FP
pORF+_2847700	2847700	2848080	381	+	1	0	1	1	1	3	3	3						FP
pORF+_2848766	2848766	2848909	144	+	2	0	1	1	1	2	2	2						FP
pORF+_2849023	2849023	2849895	873	+	1	0	2	3	3	17	19	19	b2727	hypB	2849023	2849895	equal	
pORF+_2849859	2849859	2850158	300	+	3	0	0	1	1	0	2	2	b2728	hypC	2849886	2850158	inside	
pORF+_2851276	2851276	2852286	1011	+	1	0	1	1	1	2	2	2	b2730	hypE	2851318	2852286	inside	
pORF+_2852324	2852324	2854438	2115	+	2	0	1	2	2	2	5	5	b2731	fhlA	2852360	2854438	inside	
pORF+_2855115	2855115	2857676	2562	+	3	1	4	8	8	10	18	18	b2733	mutS	2855115	2857676	equal	
pORF+_2878110	2878110	2878226	117	+	3	0	1	1	1	12	12	12						FP
pORF+_2886964	2886964	2888016	1053	+	1	0	1	1	1	6	6	6						FP
pORF+_2889118	2889118	2889450	333	+	1	0	1	1	1	2	2	2						FP
pORF+_2889147	2889147	2889572	426	+	3	0	1	1	1	2	2	2						FP
pORF+_2896079	2896079	2896666	588	+	2	0	1	1	1	2	2	2						FP
pORF+_2899918	2899918	2901396	1479	+	1	0	1	1	1	3	3	3	b2776	ygcE	2899918	2901396	equal	



pORF+_3093120	3093120	3093824	705	+	3	6	11	19	25	10	54	109	b2951	yggS	3093120	3093824	equal	
pORF+_3094703	3094703	3095296	594	+	2	2	13	18	22	165	180	189	b2954	rdgB	3094703	3095296	equal	
pORF+_3095289	3095289	3096425	1137	+	3	0	1	2	3	3	5	7	b2955	yggW	3095289	3096425	equal	
pORF+_3102115	3102115	3102390	276	+	1	5	6	12	21	3	59	146	b2962	yggX	3102115	3102390	equal	
pORF+_3102452	3102452	3103534	1083	+	2	0	0	2	4	0	6	11	b2963	mltC	3102455	3103534	inside	
pORF+_3103688	3103688	3104992	1305	+	2	0	0	0	1	0	0	2	b2964	nupG	3103736	3104992	inside	
pORF+_3109688	3109688	3110005	318	+	2	0	1	1	1	3	3	3						FP
pORF+_3127096	3127096	3127257	162	+	1	0	0	1	1	0	4	4						FP
pORF+_3128200	3128200	3129216	1017	+	1	0	0	46	46	0	158	158	b2982	insH	3128200	3129216	equal	
pORF+_3136701	3136701	3137615	915	+	3	0	11	19	27	66	100	150	b2989	yghU	3136749	3137615	inside	
pORF+_3138167	3138167	3138406	240	+	2	0	1	1	1	9	9	9						FP
pORF+_3138403	3138403	3138609	207	+	1	0	1	1	1	2	2	2						FP
pORF+_3140013	3140013	3140963	951	+	3	0	2	2	2	16	16	16						FP
pORF+_3145919	3145919	3146959	1041	+	2	0	1	3	12	3	7	53	b3001	yghZ	3145919	3146959	equal	
pORF+_3147684	3147684	3148568	885	+	3	0	2	3	7	5	7	19	b3003	yghA	3147684	3148568	equal	
pORF+_3150123	3150123	3151445	1323	+	3	0	11	22	34	215	275	327	b3008	metC	3150258	3151445	inside	
pORF+_3151585	3151585	3152244	660	+	1	0	0	1	1	0	2	2	b3009	yghB	3151585	3152244	equal	
pORF+_3153353	3153353	3154540	1188	+	2	8	14	35	53	111	327	612	b3011	yqhD	3153377	3154540	inside	
pORF+_3153651	3153651	3153788	138	+	3	0	0	0	1	0	0	2						
pORF+_3154645	3154645	3155472	828	+	1	0	13	20	32	61	86	178	b3012	dkgA	3154645	3155472	equal	
pORF+_3156649	3156649	3156906	258	+	1	1	1	1	1	0	0	0	b3014	yqhH	3156649	3156906	equal	
pORF+_3157591	3157591	3158808	1218	+	1	0	0	0	1	0	0	3						FP
pORF+_3159869	3159869	3160051	183	+	2	1	1	1	1	0	0	0						FP
pORF+_3160297	3160297	3160422	126	+	1	0	1	1	1	13	13	13						FP
pORF+_3168506	3168506	3169855	1350	+	2	0	0	0	1	0	0	2	b3026	qseC	3168506	3169855	equal	
pORF+_3170552	3170552	3171133	582	+	2	2	7	14	19	20	43	55	b3028	mdaB	3170552	3171133	equal	
pORF+_3171164	3171164	3171478	315	+	2	1	6	9	11	297	309	319	b3029	ygiN	3171164	3171478	equal	
pORF+_3172139	3172139	3172333	195	+	2	0	1	1	1	9	9	9						FP
pORF+_3174065	3174065	3174241	177	+	2	0	1	1	1	3	3	3						FP
pORF+_3176098	3176098	3177618	1521	+	1	9	45	64	77	1585	1738	1794	b3035	tolC	3176137	3177618	inside	
pORF+_3177733	3177733	3178437	705	+	1	0	3	7	9	24	35	41	b3037	ygiB	3177766	3178437	inside	
pORF+_3178443	3178443	3179603	1161	+	3	0	0	4	7	0	16	24	b3038	ygiC	3178443	3179603	equal	
pORF+_3179706	3179706	3179867	162	+	3	0	0	1	2	0	37	74						FP
pORF+_3179902	3179902	3180144	243	+	1	0	1	1	1	2	2	2						FP
pORF+_3180530	3180530	3181345	816	+	2	0	1	1	1	2	2	2	b3040	zupT	3180572	3181345	inside	
pORF+_3182802	3182802	3183152	351	+	3	0	5	6	8	93	96	103	b3042	yqiC	3182862	3183152	inside	
pORF+_3183436	3183436	3183987	552	+	1	0	1	1	1	4	4	4	b3043	ygiL	3183436	3183987	equal	
pORF+_3190230	3190230	3190859	630	+	3	0	2	2	2	8	8	8	b3050	yqiJ	3190230	3190859	equal	
pORF+_3190886	3190886	3192547	1662	+	2	0	1	1	1	2	2	2	b3051	yqiK	3190886	3192547	equal	
pORF+_3194438	3194438	3194707	270	+	2	0	1	1	1	5	5	5						FP
pORF+_3195060	3195060	3195578	519	+	3	0	0	1	1	0	2	2						FP
pORF+_3199229	3199229	3199849	621	+	2	3	8	12	16	36	52	67	b3055	htrG	3199229	3199849	equal	
pORF+_3199913	3199913	3201151	1239	+	2	0	1	3	8	4	9	23	b3056	cca	3199913	3201151	equal	
pORF+_3208803	3208803	3209018	216	+	3	6	22	28	32	1049	1079	1103	b3065	rpsU	3208803	3209018	equal	
pORF+_3209129	3209129	3210874	1746	+	2	0	4	5	6	9	11	14	b3066	dnaG	3209129	3210874	equal	
pORF+_3211069	3211069	3212910	1842	+	1	11	46	71	88	820	962	1078	b3067	rpoD	3211069	3212910	equal	

pORF+_3214801	3214801	3215424	624	+	1	1	3	7	8	7	19	24	b3071	yqjI	3214801	3215424	equal	
pORF+_3217405	3217405	3218895	1491	+	1	0	0	0	8	0	0	25	b3073	yggG	3217516	3218895	inside	
pORF+_3219488	3219488	3220471	984	+	2	0	1	3	4	3	8	10	b3075	ebgR	3219488	3220471	equal	
pORF+_3229687	3229687	3231705	2019	+	1	0	0	0	8	0	0	28	b3081	fadH	3229687	3231705	equal	
pORF+_3235315	3235315	3236319	1005	+	1	0	1	2	5	3	5	15	b3087	yggR	3235333	3236319	inside	
pORF+_3237966	3237966	3239210	1245	+	3	0	0	3	5	0	10	15	b3089	sstT	3237966	3239210	equal	
pORF+_3244659	3244659	3245450	792	+	3	0	3	7	9	9	23	30	b3094	exuR	3244674	3245450	inside	
pORF+_3246976	3246976	3247359	384	+	1	0	3	3	6	9	9	19	b3097	yqjC	3246991	3247359	inside	
pORF+_3247397	3247397	3247702	306	+	2	3	29	32	35	1284	1304	1348	b3098	yqjD	3247397	3247702	equal	
pORF+_3249025	3249025	3250032	1008	+	1	0	0	3	10	0	9	31	b3102	yqjG	3249046	3250032	inside	
pORF+_3253059	3253059	3253229	171	+	3	0	1	1	1	31	31	31	b3107	yhaL	3253065	3253229	inside	
pORF+_3253931	3253931	3254623	693	+	2	0	1	1	1	2	2	2						FP
pORF+_3265846	3265846	3266415	570	+	1	0	0	1	1	0	2	2	b3120	yhaB	3265876	3266415	inside	
pORF+_3275024	3275024	3275359	336	+	2	0	0	1	5	0	2	12	b3129	sohA	3275024	3275359	equal	
pORF+_3276936	3276936	3278216	1281	+	3	2	4	4	4	48	48	48	b3132	kbaZ	3276936	3278216	equal	
pORF+_3281165	3281165	3282025	861	+	2	1	1	1	1	0	0	0	b3137	kbaY	3281165	3282025	equal	
pORF+_3283353	3283353	3284291	939	+	3	0	0	1	1	0	2	2	b3140	agaD	3283500	3284291	inside	
pORF+_3286761	3286761	3289352	2592	+	3	0	2	2	2	9	9	9	b3144	yraJ	3286836	3289352	inside	
pORF+_3291392	3291392	3293458	2067	+	2	9	20	29	37	151	191	217	b3147	yraM	3291422	3293458	inside	
pORF+_3293831	3293831	3294421	591	+	2	0	2	4	5	9	14	18	b3149	diaA	3293831	3294421	equal	
pORF+_3294431	3294431	3295006	576	+	2	4	11	16	21	102	117	143	b3150	yraP	3294431	3295006	equal	
pORF+_3296954	3296954	3297514	561	+	2	0	1	1	2	5	5	10	b3153	yhbO	3296996	3297514	inside	
pORF+_3301470	3301470	3302477	1008	+	3	0	1	2	4	2	4	8	b3160	yhbW	3301470	3302477	equal	
pORF+_3316659	3316659	3318002	1344	+	3	10	62	104	152	2819	3512	4297	b3172	argG	3316659	3318002	equal	
pORF+_3325812	3325812	3326105	294	+	3	2	9	10	11	64	66	68	b3180	yhbY	3325812	3326105	equal	
pORF+_3326985	3326985	3328418	1434	+	3	0	0	3	4	0	11	17	b3182	dacB	3326985	3328418	equal	
pORF+_3328706	3328706	3328939	234	+	2	0	1	1	1	2	2	2						FP
pORF+_3330378	3330378	3330638	261	+	3	0	0	0	1	0	0	4						FP
pORF+_3331111	3331111	3331680	570	+	1	0	0	0	1	0	0	3						FP
pORF+_3331732	3331732	3332703	972	+	1	2	12	19	23	95	121	140	b3187	ispB	3331732	3332703	equal	
pORF+_3333452	3333452	3333856	405	+	2	0	0	1	1	0	5	5						FP
pORF+_3337479	3337479	3337670	192	+	3	0	1	1	1	2	2	2						FP
pORF+_3338297	3338297	3339274	978	+	2	0	0	0	1	0	0	2	b3196	yrbG	3338297	3339274	equal	
pORF+_3339267	3339267	3340274	1008	+	3	0	3	11	18	95	155	198	b3197	kdsD	3339288	3340274	inside	
pORF+_3340295	3340295	3340861	567	+	2	3	7	7	7	37	37	37	b3198	kdsC	3340295	3340861	equal	
pORF+_3340858	3340858	3341433	576	+	1	0	0	2	2	0	4	4	b3199	yrbK	3340858	3341433	equal	
pORF+_3341381	3341381	3341959	579	+	2	0	4	7	11	29	40	58	b3200	lptA	3341402	3341959	inside	
pORF+_3341966	3341966	3342691	726	+	2	3	16	26	36	255	298	340	b3201	lptB	3341966	3342691	equal	
pORF+_3342739	3342739	3344172	1434	+	1	0	3	8	13	14	28	43	b3202	rpoN	3342739	3344172	equal	
pORF+_3344111	3344111	3344482	372	+	2	1	2	3	5	2	12	30	b3203	hpf	3344195	3344482	inside	
pORF+_3344576	3344576	3345091	516	+	2	4	11	13	16	104	112	129	b3204	ptsN	3344600	3345091	inside	
pORF+_3345137	3345137	3345991	855	+	2	0	6	15	25	42	74	115	b3205	yhbJ	3345137	3345991	equal	
pORF+_3345988	3345988	3346260	273	+	1	0	1	1	2	2	2	4	b3206	npr	3345988	3346260	equal	
pORF+_3346417	3346417	3347106	690	+	1	0	0	1	1	0	3	3	b3207	yrbL	3346474	3347106	inside	
pORF+_3352639	3352639	3357207	4569	+	1	42	88	178	268	672	1848	2953	b3212	gltB	3352654	3357207	inside	
pORF+_3355214	3355214	3355351	138	+	2	0	0	1	1	0	9	9						FP



pORF+_3357220	3357220	3358638	1419	+	1	13	64	101	133	2103	2430	2749	b3213	gltD	3357220	3358638	equal	
pORF+_3360811	3360811	3363210	2400	+	1	0	0	1	1	0	2	2	b3216	yhcD	3360829	3363210	inside	
pORF+_3364948	3364948	3365664	717	+	1	0	1	1	1	3	3	3	b3219	yhcF	3364948	3365664	equal	
pORF+_3370177	3370177	3370485	309	+	1	0	1	1	1	2	2	2						FP
pORF+_3372873	3372873	3374258	1386	+	3	0	0	0	1	0	0	2	b3227	dcuD	3372891	3374258	inside	
pORF+_3378207	3378207	3378611	405	+	3	0	9	16	20	261	288	311	b3233	yhcB	3378213	3378611	inside	
pORF+_3378723	3378723	3380132	1410	+	3	8	25	34	45	218	252	296	b3234	degQ	3378765	3380132	inside	
pORF+_3380222	3380222	3381289	1068	+	2	2	4	7	8	18	26	28	b3235	degS	3380222	3381289	equal	
pORF+_3382725	3382725	3383195	471	+	3	0	3	8	10	13	34	41	b3237	argR	3382725	3383195	equal	
pORF+_3383509	3383509	3383823	315	+	1	0	1	2	3	3	6	9	b3238	yhcN	3383560	3383823	inside	
pORF+_3385194	3385194	3385481	288	+	3	0	0	1	1	0	2	2						FP
pORF+_3386286	3386286	3386564	279	+	3	0	1	1	1	2	2	2						FP
pORF+_3387542	3387542	3388471	930	+	2	0	1	2	3	3	5	8	b3243	aaeR	3387542	3388471	equal	
pORF+_3390384	3390384	3390899	516	+	3	0	1	1	1	2	2	2						FP
pORF+_3393420	3393420	3393653	234	+	3	0	1	1	1	7	7	7						FP
pORF+_3397143	3397143	3397763	621	+	3	1	1	1	1	0	0	0						FP
pORF+_3397785	3397785	3397970	186	+	3	0	0	1	1	0	3	3						FP
pORF+_3400716	3400716	3400829	114	+	3	0	1	1	1	5	5	5						FP
pORF+_3401506	3401506	3402480	975	+	1	2	11	18	29	236	260	302	b3253	yhdH	3401506	3402480	equal	
pORF+_3403458	3403458	3403928	471	+	3	3	10	17	19	316	345	351	b3255	accB	3403458	3403928	equal	
pORF+_3403900	3403900	3405288	1389	+	1	21	51	70	88	740	855	953	b3256	accC	3403939	3405288	inside	
pORF+_3407092	3407092	3407973	882	+	1	2	4	7	9	5	12	17	b3259	prmA	3407092	3407973	equal	
pORF+_3408302	3408302	3409267	966	+	2	0	1	1	1	2	2	2	b3260	dusB	3408302	3409267	equal	
pORF+_3409293	3409293	3409589	297	+	3	4	8	10	12	271	293	301	b3261	fis	3409293	3409589	equal	
pORF+_3411886	3411886	3413043	1158	+	1	4	6	6	6	10	10	10	b3265	acrE	3411886	3413043	equal	
pORF+_3413055	3413055	3416159	3105	+	3	5	5	8	10	0	8	12	b3266	acrF	3413055	3416159	equal	
pORF+_3416412	3416412	3416633	222	+	3	0	0	0	1	0	0	2	b3267	yhdV	3416412	3416633	equal	
pORF+_3420458	3420458	3421216	759	+	2	2	2	2	2	0	0	0	b3271	yhdZ	3420458	3421216	equal	
pORF+_3427042	3427042	3427812	771	+	1	0	8	15	19	209	231	244	b3279	yrdA	3427258	3427812	inside	
pORF+_3428768	3428768	3429028	261	+	2	0	1	1	1	3	3	3						FP
pORF+_3429532	3429532	3429768	237	+	1	0	1	1	1	2	2	2						FP
pORF+_3431712	3431712	3432221	510	+	3	6	10	17	20	124	139	149	b3287	def	3431712	3432221	equal	
pORF+_3432236	3432236	3433183	948	+	2	11	14	18	26	79	98	126	b3288	fmt	3432236	3433183	equal	
pORF+_3433208	3433208	3434518	1311	+	2	2	4	7	10	49	57	65	b3289	rsmB	3433229	3434518	inside	
pORF+_3434540	3434540	3435916	1377	+	2	0	3	3	6	7	7	14	b3290	trkA	3434540	3435916	equal	
pORF+_3436046	3436046	3436456	411	+	2	0	0	0	1	0	0	3	b3291	mscL	3436046	3436456	equal	
pORF+_3441682	3441682	3442074	393	+	1	0	1	1	1	2	2	2						FP
pORF+_3449667	3449667	3450302	636	+	3	0	1	1	1	2	2	2						FP
pORF+_3456361	3456361	3457842	1482	+	1	0	1	1	1	3	3	3	b3326	gspE	3456361	3457842	equal	
pORF+_3464586	3464586	3464783	198	+	3	0	1	1	1	2	2	2						FP
pORF+_3475662	3475662	3475880	219	+	3	0	0	2	3	0	7	10	b3348	slyX	3475662	3475880	equal	
pORF+_3478140	3478140	3478421	282	+	3	0	1	1	1	2	2	2						FP
pORF+_3478268	3478268	3478729	462	+	2	0	1	1	1	2	2	2						FP
pORF+_3479311	3479311	3481224	1914	+	1	4	8	15	19	8	28	36	b3352	yheS	3479311	3481224	equal	
pORF+_3482240	3482240	3482458	219	+	2	0	1	1	1	6	6	6	b3354	yheU	3482240	3482458	equal	
pORF+_3482512	3482512	3483381	870	+	1	0	2	5	7	4	18	24	b3355	prkB	3482512	3483381	equal	

pORF+_3484142	3484142	3484774	633	+	2	11	26	38	51	444	509	572	b3357	crp	3484142	3484774	equal	
pORF+_3484785	3484785	3484982	198	+	3	0	1	1	1	2	2	2						FP
pORF+_3492033	3492033	3494576	2544	+	3	0	1	2	2	2	4	4	b3365	nirB	3492033	3494576	equal	
pORF+_3495850	3495850	3497223	1374	+	1	0	2	5	8	9	16	25	b3368	cysG	3495850	3497223	equal	
pORF+_3502008	3502008	3502805	798	+	3	0	0	1	2	0	3	5	b3375	frlR	3502074	3502805	inside	
pORF+_3505932	3505932	3506099	168	+	3	0	1	1	1	3	3	3						FP
pORF+_3506109	3506109	3506756	648	+	3	0	1	1	1	2	2	2						FP
pORF+_3508441	3508441	3508773	333	+	1	0	1	1	1	14	14	14						FP
pORF+_3520869	3520869	3523445	2577	+	3	2	5	12	18	9	23	40	b3396	mrcA	3520893	3523445	inside	
pORF+_3524491	3524491	3526626	2136	+	1	0	0	0	3	0	0	8	b3398	yrfF	3524491	3526626	equal	
pORF+_3527370	3527370	3527771	402	+	3	0	1	3	5	2	12	23	b3400	hslR	3527370	3527771	equal	
pORF+_3527790	3527790	3528674	885	+	3	7	9	16	20	5	118	135	b3401	hslO	3527796	3528674	inside	
pORF+_3528532	3528532	3528798	267	+	1	0	0	0	1	0	0	3						FP
pORF+_3530771	3530771	3532462	1692	+	2	22	55	71	98	1365	1427	1599	b3403	pck	3530840	3532462	inside	
pORF+_3533975	3533975	3534241	267	+	2	0	0	0	1	0	0	2						FP
pORF+_3535407	3535407	3537728	2322	+	3	16	37	64	84	366	474	554	b3407	yhgF	3535407	3537728	equal	
pORF+_3538417	3538417	3540750	2334	+	1	2	5	10	10	11	25	25	b3409	feoB	3538429	3540750	inside	
pORF+_3543646	3543646	3544221	576	+	1	7	13	21	26	265	313	348	b3414	gntY	3543646	3544221	equal	
pORF+_3544581	3544581	3545897	1317	+	3	1	1	1	1	0	0	0	b3415	gntT	3544581	3545897	equal	
pORF+_3547820	3547820	3549082	1263	+	2	0	0	1	1	0	2	2						FP
pORF+_3551107	3551107	3553812	2706	+	1	0	1	6	6	6	24	24	b3418	malT	3551107	3553812	equal	
pORF+_3553148	3553148	3553276	129	+	2	0	1	1	1	5	5	5						FP
pORF+_3560021	3560021	3561541	1521	+	2	6	62	63	66	1533	1535	1545	b3426	glpD	3560036	3561541	inside	
pORF+_3560583	3560583	3560666	84	+	3	0	1	1	1	2	2	2						FP
pORF+_3584966	3584966	3585406	441	+	2	0	1	4	15	5	17	78	b3448	yhhA	3584966	3585406	equal	
pORF+_3596007	3596007	3596390	384	+	3	0	1	2	2	5	7	7	b3459	yhhK	3596007	3596390	equal	
pORF+_3598268	3598268	3598489	222	+	2	0	0	1	1	0	4	4						FP
pORF+_3602416	3602416	3603012	597	+	1	0	2	2	2	5	5	5	b3465	rsmD	3602416	3603012	equal	
pORF+_3604474	3604474	3606672	2199	+	1	0	1	4	7	3	9	16	b3469	zntA	3604474	3606672	equal	
pORF+_3607924	3607924	3608535	612	+	1	4	10	15	19	115	141	171	b3472	dcrB	3607978	3608535	inside	
pORF+_3611690	3611690	3613264	1575	+	2	0	5	5	5	36	36	36	b3476	nikA	3611690	3613264	equal	
pORF+_3615799	3615799	3616605	807	+	1	1	2	2	2	3	3	3	b3480	nikE	3615799	3616605	equal	
pORF+_3616611	3616611	3617012	402	+	3	0	1	3	6	29	39	48	b3481	nikR	3616611	3617012	equal	
pORF+_3623826	3623826	3624377	552	+	3	0	1	1	1	10	10	10						FP
pORF+_3624666	3624666	3624899	234	+	3	0	0	1	1	0	8	8						FP
pORF+_3627269	3627269	3627499	231	+	2	0	0	1	2	0	4	8						FP
pORF+_3635665	3635665	3637164	1500	+	1	2	3	6	8	2	14	24	b3493	pitA	3635665	3637164	equal	
pORF+_3638134	3638134	3638568	435	+	1	4	22	34	45	1312	1556	1829	b3495	uspA	3638134	3638568	equal	
pORF+_3643357	3643357	3644250	894	+	1	4	8	11	14	17	24	33	b3499	yhiR	3643408	3644250	inside	
pORF+_3644322	3644322	3645674	1353	+	3	13	25	39	53	164	221	360	b3500	gor	3644322	3645674	equal	
pORF+_3645485	3645485	3645706	222	+	2	0	0	0	1	0	0	2						FP
pORF+_3646937	3646937	3648247	1311	+	2	0	1	1	1	7	7	7	b3502	arsB	3646958	3648247	inside	
pORF+_3648260	3648260	3648685	426	+	2	0	0	3	8	0	7	17	b3503	arsC	3648260	3648685	equal	
pORF+_3651951	3651951	3652550	600	+	3	2	4	7	13	16	36	102	b3506	slp	3651984	3652550	inside	
pORF+_3656311	3656311	3656916	606	+	1	0	0	0	1	0	0	4	b3512	gadE	3656389	3656916	inside	
pORF+_3657255	3657255	3658412	1158	+	3	2	4	5	14	33	39	70	b3513	mdtE	3657255	3658412	equal	

pORF_+_3658437	3658437	3661550	3114	+	3	4	5	5	7	2	2	8	b3514	mdtF	3658437	3661550	equal	
pORF_+_3664881	3664881	3665456	576	+	3	0	1	1	1	20	20	20						FP
pORF_+_3665817	3665817	3665987	171	+	3	0	0	0	1	0	0	2						FP
pORF_+_3668028	3668028	3668123	96	+	3	0	0	1	2	0	4	8						FP
pORF_+_3672809	3672809	3674131	1323	+	2	0	2	5	5	9	20	20	b3523	yhjE	3672809	3674131	equal	
pORF_+_3677094	3677094	3678371	1278	+	3	2	7	11	16	16	25	36	b3526	kdgK	3677442	3678371	inside	
pORF_+_3690278	3690278	3690940	663	+	2	0	1	1	1	5	5	5						FP
pORF_+_3694481	3694481	3696052	1572	+	2	0	0	1	1	0	2	2	b3536	bcsE	3694481	3696052	equal	
pORF_+_3696237	3696237	3697916	1680	+	3	0	4	7	8	27	44	46	b3538	bcsG	3696237	3697916	equal	
pORF_+_3702260	3702260	3702454	195	+	2	0	1	1	1	18	18	18						FP
pORF_+_3712930	3712930	3714030	1101	+	1	0	0	1	1	0	2	2						FP
pORF_+_3714570	3714570	3715229	660	+	3	5	5	9	12	0	11	20	b3552	viaD	3714570	3715229	equal	
pORF_+_3715321	3715321	3716307	987	+	1	4	23	34	46	323	388	458	b3553	ghrB	3715333	3716307	inside	
pORF_+_3718072	3718072	3718284	213	+	1	12	14	15	15	15	19	19	b3556	cspA	3718072	3718284	equal	
pORF_+_3719221	3719221	3720072	852	+	1	0	1	1	1	2	2	2	b3558	insK	3719221	3720072	equal	
pORF_+_3726051	3726051	3726458	408	+	3	0	0	0	1	0	0	3						FP
pORF_+_3726377	3726377	3726610	234	+	2	0	1	1	1	7	7	7						FP
pORF_+_3729076	3729076	3730146	1071	+	1	0	1	1	6	2	2	22	b3566	xyIF	3729154	3730146	inside	
pORF_+_3737623	3737623	3738981	1359	+	1	1	4	10	13	24	52	68	b3572	avtA	3737728	3738981	inside	
pORF_+_3744117	3744117	3745103	987	+	3	0	2	2	2	6	6	6	b3579	viaO	3744117	3745103	equal	
pORF_+_3746600	3746600	3747262	663	+	2	0	1	1	1	2	2	2	b3581	sgbH	3746600	3747262	equal	
pORF_+_3747604	3747604	3747699	96	+	1	0	0	1	1	0	5	5						FP
pORF_+_3749173	3749173	3749307	135	+	1	0	1	1	1	2	2	2						FP
pORF_+_3764345	3764345	3765202	858	+	2	0	1	1	1	4	4	4	b3594	yibA	3764360	3765202	inside	
pORF_+_3766986	3766986	3767279	294	+	3	0	1	1	1	2	2	2	b4651	yibW	3766915	3767279	contain_f3	
pORF_+_3770304	3770304	3772217	1914	+	3	3	16	26	44	227	258	393	b3599	mtIA	3770304	3772217	equal	
pORF_+_3772129	3772129	3773595	1467	+	1	7	35	49	66	642	773	995	b3600	mtID	3772447	3773595	inside	
pORF_+_3774688	3774688	3775050	363	+	1	2	15	18	22	300	314	336	b3602	yibL	3774688	3775050	equal	
pORF_+_3775395	3775395	3777077	1683	+	3	0	1	1	1	2	2	2	b3603	lldP	3775422	3777077	inside	
pORF_+_3777850	3777850	3779040	1191	+	1	0	23	27	37	466	484	527	b3605	lldD	3777850	3779040	equal	
pORF_+_3779238	3779238	3779711	474	+	3	0	0	0	1	0	0	3	b3606	yibK	3779238	3779711	equal	
pORF_+_3783139	3783139	3784827	1689	+	1	13	45	64	80	954	1252	1476	b3612	gpmM	3783283	3784827	inside	
pORF_+_3784837	3784837	3786120	1284	+	1	0	1	2	4	2	4	11	b3613	envC	3784861	3786120	inside	
pORF_+_3786124	3786124	3787083	960	+	1	0	0	0	2	0	0	4	b3614	yibQ	3786124	3787083	equal	
pORF_+_3792010	3792010	3792942	933	+	1	20	39	57	77	633	722	851	b3619	rfaD	3792010	3792942	equal	
pORF_+_3792952	3792952	3793998	1047	+	1	2	4	8	11	10	21	30	b3620	rfaF	3792952	3793998	equal	
pORF_+_3794971	3794971	3796230	1260	+	1	0	1	1	2	3	3	5	b3622	rfaL	3794971	3796230	equal	
pORF_+_3806563	3806563	3807840	1278	+	1	2	2	6	9	0	13	21	b3633	waaA	3806563	3807840	equal	
pORF_+_3807680	3807680	3808327	648	+	2	0	1	5	8	2	12	25	b3634	coaD	3807848	3808327	inside	
pORF_+_3810682	3810682	3811974	1293	+	1	2	13	22	31	122	167	202	b3639	dfp	3810754	3811974	inside	
pORF_+_3811952	3811952	3812410	459	+	2	4	11	17	21	243	273	289	b3640	dut	3811955	3812410	inside	
pORF_+_3812475	3812475	3813113	639	+	3	0	1	4	5	3	20	24	b3641	slmA	3812517	3813113	inside	
pORF_+_3814699	3814699	3815562	864	+	1	10	24	34	42	258	289	321	b3644	yicC	3814699	3815562	equal	
pORF_+_3816843	3816843	3817514	672	+	3	0	0	0	1	0	0	2	b3646	yicG	3816897	3817514	inside	
pORF_+_3819394	3819394	3820074	681	+	1	4	15	20	27	103	116	136	b3648	gmk	3819451	3820074	inside	
pORF_+_3820129	3820129	3820404	276	+	1	9	21	27	34	342	383	419	b3649	rpoZ	3820129	3820404	equal	

pORF+_3820423	3820423	3822531	2109	+	1	2	4	9	17	4	19	42	b3650	spoT	3820423	3822531	equal	
pORF+_3822538	3822538	3823227	690	+	1	0	1	3	4	2	7	9	b3651	trmH	3822538	3823227	equal	
pORF+_3823200	3823200	3825314	2115	+	3	0	0	5	7	0	14	19	b3652	recG	3823233	3825314	inside	
pORF+_3826959	3826959	3828359	1401	+	3	0	0	2	4	0	6	10	b3654	yicE	3826968	3828359	inside	
pORF+_3828456	3828456	3830189	1734	+	3	0	0	8	15	0	21	50	b3655	yicH	3828480	3830189	inside	
pORF+_3841987	3841987	3843753	1767	+	1	0	0	2	2	0	4	4	b3665	ade	3841987	3843753	equal	
pORF+_3865676	3865676	3866083	408	+	2	0	2	2	2	6	6	6	b3688	yidQ	3865751	3866083	inside	
pORF+_3865977	3865977	3866180	204	+	3	0	1	1	1	2	2	2						FP
pORF+_3877508	3877508	3877711	204	+	2	0	1	1	1	2	2	2						FP
pORF+_3880449	3880449	3880595	147	+	3	0	1	1	1	2	2	2						FP
pORF+_3882359	3882359	3882499	141	+	2	2	5	6	7	130	132	134	b3703	rpmH	3882359	3882499	equal	
pORF+_3882516	3882516	3882875	360	+	3	0	6	8	10	32	37	42	b3704	rnpA	3882516	3882875	equal	
pORF+_3883099	3883099	3884745	1647	+	1	6	9	25	38	32	169	316	b3705	yidC	3883099	3884745	equal	
pORF+_3884851	3884851	3886215	1365	+	1	0	7	14	19	63	85	102	b3706	mnmE	3884851	3886215	equal	
pORF+_3886738	3886738	3888168	1431	+	1	15	18	19	20	14	17	19	b3708	tnaA	3886753	3888168	inside	
pORF+_3892675	3892675	3893241	567	+	1	4	13	19	24	140	165	203	b3713	yieF	3892675	3893241	equal	
pORF+_3894797	3894797	3895462	666	+	2	0	0	1	1	0	2	2	b3715	yieH	3894797	3895462	equal	
pORF+_3906560	3906560	3907198	639	+	2	0	0	0	1	0	0	2						FP
pORF+_3925178	3925178	3926170	993	+	2	9	22	31	31	281	318	318	b3744	asnA	3925178	3926170	equal	
pORF+_3926905	3926905	3927039	135	+	1	0	1	1	1	2	2	2						FP
pORF+_3929339	3929339	3931207	1869	+	2	0	1	3	3	3	7	7	b3747	kup	3929339	3931207	equal	
pORF+_3931338	3931338	3931793	456	+	3	4	7	8	10	28	30	36	b3748	rbsD	3931374	3931793	inside	
pORF+_3931801	3931801	3933306	1506	+	1	0	0	4	9	0	11	24	b3749	rbsA	3931801	3933306	equal	
pORF+_3932087	3932087	3932269	183	+	2	0	1	1	1	2	2	2						FP
pORF+_3934295	3934295	3935191	897	+	2	14	58	70	88	1420	1471	1563	b3751	rbsB	3934301	3935191	inside	
pORF+_3935290	3935290	3936246	957	+	1	5	10	16	22	149	166	200	b3752	rbsK	3935317	3936246	inside	
pORF+_3936250	3936250	3937242	993	+	1	2	2	2	2	0	0	0	b3753	rbsR	3936250	3937242	equal	
pORF+_3937929	3937929	3938096	168	+	3	0	1	1	1	2	2	2						FP
pORF+_3938115	3938115	3938255	141	+	3	0	1	1	1	2	2	2						FP
pORF+_3946109	3946109	3946447	339	+	2	7	19	28	36	470	521	572	b3764	yifE	3946109	3946447	equal	
pORF+_3948583	3948583	3949566	984	+	1	0	1	11	11	2	46	46	b4488	ilvG	3948583	3950227	contain	
pORF+_3949646	3949646	3950227	582	+	2	1	1	1	1	0	0	0	b4488	ilvG	3948583	3950227	contain_f2	
pORF+_3950441	3950441	3951436	996	+	2	4	21	32	46	453	510	593	b3770	ilvE	3950507	3951436	inside	
pORF+_3951501	3951501	3953351	1851	+	3	2	25	41	55	411	462	509	b3771	ilvD	3951501	3953351	equal	
pORF+_3953354	3953354	3954898	1545	+	2	0	3	13	21	10	42	67	b3772	ilvA	3953354	3954898	equal	
pORF+_3955858	3955858	3957468	1611	+	1	11	125	186	241	7525	9397	10430	b3774	ilvC	3955993	3957468	inside	
pORF+_3958649	3958649	3960721	2073	+	2	0	0	3	6	0	10	20	b3778	rep	3958700	3960721	inside	
pORF+_3963679	3963679	3964113	435	+	1	5	23	29	35	804	853	888	b3781	trxA	3963784	3964113	inside	
pORF+_3964368	3964368	3965699	1332	+	3	28	96	119	147	3864	4163	4537	b3783	rho	3964440	3965699	inside	
pORF+_3967051	3967051	3968100	1050	+	1	0	10	16	21	57	71	87	b3785	wzzE	3967054	3968100	inside	
pORF+_3968114	3968114	3969286	1173	+	2	5	7	13	18	10	29	43	b3786	rffE	3968156	3969286	inside	
pORF+_3969283	3969283	3970545	1263	+	1	2	2	5	6	0	7	11	b3787	rffD	3969283	3970545	equal	
pORF+_3970545	3970545	3971612	1068	+	3	2	4	12	20	6	29	53	b3788	rffG	3970545	3971612	equal	
pORF+_3971631	3971631	3972512	882	+	3	6	8	13	16	60	70	79	b3789	rffH	3971631	3972512	equal	
pORF+_3973169	3973169	3974299	1131	+	2	0	0	6	14	0	15	38	b3791	rffA	3973169	3974299	equal	
pORF+_3974301	3974301	3975551	1251	+	3	0	0	1	1	0	2	2	b3792	wzxE	3974301	3975551	equal	

pORF+_3975548	3975548	3976627	1080	+	2	0	0	1	2	0	3	6	b4481	rffT	3975548	3976627	equal	
pORF+_3976624	3976624	3977976	1353	+	1	0	1	1	1	5	5	5	b3793	wzyE	3976624	3977976	equal	
pORF+_3977166	3977166	3977390	225	+	3	0	1	1	1	2	2	2						FP
pORF+_3977979	3977979	3978719	741	+	3	0	0	1	2	0	2	5	b3794	rffM	3977979	3978719	equal	
pORF+_3978801	3978801	3978875	75	+	3	0	0	0	1	0	0	4						FP
pORF+_3985054	3985054	3985272	219	+	1	0	0	0	1	0	0	2						FP
pORF+_3986293	3986293	3986457	165	+	1	0	1	1	1	2	2	2						FP
pORF+_3987790	3987790	3987978	189	+	1	0	0	1	1	0	2	2						FP
pORF+_3989176	3989176	3991722	2547	+	1	0	1	7	8	3	20	22	b3806	cyaA	3989176	3991722	equal	
pORF+_3992545	3992545	3992748	204	+	1	0	1	2	3	3	13	26	b4558	yifL	3992545	3992748	equal	
pORF+_3992782	3992782	3993609	828	+	1	0	1	6	10	16	45	61	b3809	dapF	3992785	3993609	inside	
pORF+_3993606	3993606	3994313	708	+	3	0	3	4	4	37	39	39	b3810	yigA	3993606	3994313	equal	
pORF+_3994310	3994310	3995206	897	+	2	0	1	2	2	16	18	18	b3811	xerC	3994310	3995206	equal	
pORF+_3995206	3995206	3995922	717	+	1	0	2	7	12	12	27	44	b3812	yigB	3995206	3995922	equal	
pORF+_3995817	3995817	3998168	2352	+	3	2	3	7	9	4	13	20	b3813	uvrD	3996006	3998168	inside	
pORF+_3995965	3995965	3996144	180	+	1	0	1	1	1	2	2	2						FP
pORF+_3998371	3998371	3998520	150	+	1	0	1	1	1	8	8	8						FP
pORF+_3999434	3999434	4000399	966	+	2	2	2	9	16	0	31	54	b3816	corA	3999449	4000399	inside	
pORF+_4002885	4002885	4003754	870	+	3	0	0	2	3	0	4	6	b3821	pIdA	4002885	4003754	equal	
pORF+_4003881	4003881	4005716	1836	+	3	0	1	1	1	2	2	2	b3822	recQ	4003887	4005716	inside	
pORF+_4004686	4004686	4005045	360	+	1	0	0	0	1	0	0	2						FP
pORF+_4007193	4007193	4008215	1023	+	3	0	0	0	2	0	0	5	b3825	pIdB	4007193	4008215	equal	
pORF+_4008097	4008097	4009023	927	+	1	1	4	11	18	9	30	52	b3826	yigL	4008223	4009023	inside	
pORF+_4011076	4011076	4013337	2262	+	1	13	171	258	310	11407	15713	16681	b3829	metE	4011076	4013337	equal	
pORF+_4012292	4012292	4012627	336	+	2	0	1	1	1	2	2	2						FP
pORF+_4014448	4014448	4015215	768	+	1	11	22	32	44	345	482	780	b3831	udp	4014454	4015215	inside	
pORF+_4015356	4015356	4016783	1428	+	3	1	1	1	3	0	0	4	b3832	rnuC	4015356	4016783	equal	
pORF+_4016878	4016878	4017633	756	+	1	7	20	30	36	382	422	437	b3833	ubiE	4016878	4017633	equal	
pORF+_4017602	4017602	4018252	651	+	2	0	2	3	3	15	22	22	b3834	yigP	4017647	4018252	inside	
pORF+_4018249	4018249	4019889	1641	+	1	0	0	0	1	0	0	3	b3835	ubiB	4018249	4019889	equal	
pORF+_4019926	4019926	4020237	312	+	1	3	11	16	23	97	110	128	b3836	tatA	4019968	4020237	inside	
pORF+_4020241	4020241	4020756	516	+	1	1	2	4	7	8	16	24	b3838	tatB	4020241	4020756	equal	
pORF+_4023011	4023011	4024504	1494	+	2	5	6	14	24	11	50	95	b3843	ubiD	4023011	4024504	equal	
pORF+_4024517	4024517	4025251	735	+	2	2	5	11	15	10	27	43	b3844	fre	4024550	4025251	inside	
pORF+_4029184	4029184	4030515	1332	+	1	9	23	36	48	155	232	314	b3847	pepQ	4029184	4030515	equal	
pORF+_4031168	4031168	4032619	1452	+	2	0	0	1	1	0	3	3	b3849	trkH	4031168	4032619	equal	
pORF+_4032631	4032631	4033176	546	+	1	0	2	7	10	15	29	38	b3850	hemG	4032631	4033176	equal	
pORF+_4040062	4040062	4040361	300	+	1	3	9	19	28	118	205	287	b3858	yihD	4040092	4040361	inside	
pORF+_4040438	4040438	4041424	987	+	2	0	0	2	5	0	5	13	b3859	rdoA	4040438	4041424	equal	
pORF+_4041441	4041441	4042067	627	+	3	8	12	15	18	38	48	58	b3860	dsbA	4041441	4042067	equal	
pORF+_4044005	4044005	4044154	150	+	2	0	0	0	1	0	0	4						FP
pORF+_4044989	4044989	4047775	2787	+	2	13	31	54	74	156	246	342	b3863	polA	4044989	4047775	equal	
pORF+_4046524	4046524	4046610	87	+	1	0	1	1	1	2	2	2						FP
pORF+_4049307	4049307	4049879	573	+	3	3	5	11	15	25	40	55	b3866	yihI	4049370	4049879	inside	
pORF+_4050062	4050062	4051441	1380	+	2	0	2	7	13	11	26	40	b3867	hemN	4050068	4051441	inside	
pORF+_4052750	4052750	4053145	396	+	2	0	0	0	1	0	0	2						FP

pORF_+_4056430	4056430	4058253	1824	+	1	22	73	94	118	2552	2753	2970	b3871	typA	4056430	4058253	equal	
pORF_+_4057250	4057250	4057276	27	+	2	0	0	0	1	0	0	4					equal	FP
pORF_+_4059188	4059188	4060168	981	+	2	0	0	0	1	0	0	3	b3873	yihM	4059188	4060168	equal	
pORF_+_4070836	4070836	4071195	360	+	1	0	1	1	1	3	3	3					equal	FP
pORF_+_4072668	4072668	4073477	810	+	3	0	0	2	4	0	6	17	b3884	yihW	4072692	4073477	inside	
pORF_+_4073555	4073555	4074175	621	+	2	0	0	2	5	0	9	28	b3885	yihX	4073576	4074175	inside	
pORF_+_4075038	4075038	4075475	438	+	3	0	1	1	2	4	4	9	b3887	dtd	4075038	4075475	equal	
pORF_+_4075472	4075472	4076461	990	+	2	0	1	7	12	2	18	30	b3888	yiiD	4075472	4076461	equal	
pORF_+_4084039	4084039	4084872	834	+	1	1	1	2	3	0	10	16	b3895	fdhD	4084039	4084872	equal	
pORF_+_4098827	4098827	4099453	627	+	2	16	58	71	84	1763	1847	1926	b3908	sodA	4098833	4099453	inside	
pORF_+_4100815	4100815	4101519	705	+	1	3	5	7	10	6	11	28	b3910	yiiM	4100845	4101519	inside	
pORF_+_4102761	4102761	4103000	240	+	3	0	0	1	1	0	6	6					equal	FP
pORF_+_4103840	4103840	4104343	504	+	2	0	0	4	7	0	15	24	b4484	cpXP	4103843	4104343	inside	
pORF_+_4104474	4104474	4105394	921	+	3	0	0	1	2	0	3	5	b3915	fieF	4104492	4105394	inside	
pORF_+_4105479	4105479	4106537	1059	+	3	13	31	46	60	608	829	1080	b3916	pfkA	4105575	4106537	inside	
pORF_+_4106857	4106857	4107846	990	+	1	0	11	15	18	113	131	139	b3917	sbp	4106857	4107846	equal	
pORF_+_4107761	4107761	4108708	948	+	2	0	0	0	1	0	0	2	b3918	cdh	4107953	4108708	inside	
pORF_+_4110990	4110990	4111289	300	+	3	0	0	4	8	0	9	144	b3922	yiiS	4110990	4111289	equal	
pORF_+_4111316	4111316	4111744	429	+	2	0	4	6	10	121	139	341	b3923	uspD	4111316	4111744	equal	
pORF_+_4112920	4112920	4113405	486	+	1	0	0	0	1	0	0	2					equal	FP
pORF_+_4116520	4116520	4116783	264	+	1	5	19	27	33	476	571	664	b3928	yiiU	4116538	4116783	inside	
pORF_+_4122581	4122581	4122946	366	+	2	0	1	1	1	9	9	9					equal	FP
pORF_+_4125036	4125036	4125248	213	+	3	8	21	23	25	118	156	162	b3936	rpmE	4125036	4125248	equal	
pORF_+_4126518	4126518	4127855	1338	+	3	0	18	32	42	553	612	716	b3939	metB	4126695	4127855	inside	
pORF_+_4127858	4127858	4130290	2433	+	2	3	9	31	47	43	151	214	b3940	metL	4127858	4130290	equal	
pORF_+_4130639	4130639	4131529	891	+	2	0	19	37	54	421	685	764	b3941	metF	4130639	4131529	equal	
pORF_+_4131819	4131819	4134038	2220	+	3	20	50	80	108	667	879	1149	b3942	katG	4131858	4134038	inside	
pORF_+_4136746	4136746	4136904	159	+	1	0	0	1	1	0	2	2					equal	FP
pORF_+_4143447	4143447	4143608	162	+	3	0	1	1	1	2	2	2					equal	FP
pORF_+_4153024	4153024	4154028	1005	+	1	0	4	16	25	18	101	145	b3958	argC	4153024	4154028	equal	
pORF_+_4154003	4154003	4154812	810	+	2	0	18	29	37	273	339	383	b3959	argB	4154036	4154812	inside	
pORF_+_4154873	4154873	4156246	1374	+	2	0	23	46	66	1218	1511	1715	b3960	argH	4154873	4156246	equal	
pORF_+_4156483	4156483	4157430	948	+	1	2	7	13	20	214	241	270	b3961	oxyR	4156513	4157430	inside	
pORF_+_4159051	4159051	4159794	744	+	1	0	2	5	7	19	28	34	b3963	fabR	4159147	4159794	inside	
pORF_+_4161617	4161617	4163506	1890	+	2	7	9	25	40	7	67	118	b3966	btuB	4161662	4163506	inside	
pORF_+_4163439	4163439	4164308	870	+	3	0	2	4	7	4	11	21	b3967	murI	4163451	4164308	inside	
pORF_+_4170080	4170080	4171108	1029	+	2	2	3	5	5	2	7	7	b3972	murB	4170080	4171108	equal	
pORF_+_4171105	4171105	4172070	966	+	1	0	0	2	2	0	4	4	b3973	birA	4171105	4172070	equal	
pORF_+_4173967	4173967	4175151	1185	+	1	36	434	568	727	42974	52620	63487	b3980	tufB	4173967	4175151	equal	
pORF_+_4175381	4175381	4175764	384	+	2	0	0	1	2	0	2	4	b3981	secE	4175381	4175764	equal	
pORF_+_4175766	4175766	4176311	546	+	3	8	33	43	54	1492	1541	1592	b3982	nusG	4175766	4176311	equal	
pORF_+_4176470	4176470	4176898	429	+	2	7	55	60	67	4575	4681	4760	b3983	rplK	4176470	4176898	equal	
pORF_+_4176902	4176902	4177606	705	+	2	20	121	142	168	7941	8735	9599	b3984	rplA	4176902	4177606	equal	
pORF_+_4178019	4178019	4178516	498	+	3	10	80	94	110	6001	6180	6344	b3985	rplJ	4178019	4178516	equal	
pORF_+_4178583	4178583	4178948	366	+	3	11	70	86	104	5457	7456	8906	b3986	rplL	4178583	4178948	equal	
pORF_+_4179235	4179235	4183296	4062	+	1	73	244	322	397	7817	8621	9380	b3987	rpoB	4179268	4183296	inside	

pORF+_4183373	4183373	4187596	4224	+	2	77	233	320	399	8226	8836	9387	b3988	rpoC	4183373	4187596	equal	
pORF+_4185978	4185978	4186163	186	+	3	0	1	1	1	2	2	2						FP
pORF+_4194926	4194926	4195699	774	+	2	0	0	4	6	0	13	17	b3996	nudC	4194926	4195699	equal	
pORF+_4195739	4195739	4196803	1065	+	2	3	9	18	23	47	77	100	b3997	hemE	4195739	4196803	equal	
pORF+_4196807	4196807	4197484	678	+	2	0	0	1	1	0	2	2	b3998	nfi	4196813	4197484	inside	
pORF+_4197527	4197527	4198117	591	+	2	3	3	5	6	0	4	7	b3999	yjaG	4197527	4198117	equal	
pORF+_4198304	4198304	4198576	273	+	2	9	44	51	63	4894	5493	6480	b4000	hupA	4198304	4198576	equal	
pORF+_4202779	4202779	4203645	867	+	1	0	1	1	1	2	2	2						FP
pORF+_4203840	4203840	4205426	1587	+	3	0	1	1	1	3	3	3						FP
pORF+_4203985	4203985	4204257	273	+	1	0	0	1	1	0	2	2						FP
pORF+_4211221	4211221	4211640	420	+	1	0	1	1	1	10	10	10	b4011	yjaA	4211257	4211640	inside	
pORF+_4212303	4212303	4213232	930	+	3	0	5	18	25	86	171	383	b4013	metA	4212303	4213232	equal	
pORF+_4213483	4213483	4215102	1620	+	1	0	38	73	113	1044	1876	2657	b4014	aceB	4213501	4215102	inside	
pORF+_4215117	4215117	4216436	1320	+	3	0	55	102	165	4495	5547	7560	b4015	aceA	4215132	4216436	inside	
pORF+_4216619	4216619	4218355	1737	+	2	0	0	1	2	0	2	4	b4016	aceK	4216619	4218355	equal	
pORF+_4221830	4221830	4225534	3705	+	2	2	15	44	62	85	198	247	b4019	metH	4221851	4225534	inside	
pORF+_4225754	4225754	4227385	1632	+	2	0	0	2	5	0	9	16	b4020	yjbB	4225754	4227385	equal	
pORF+_4228377	4228377	4229249	873	+	3	0	1	2	2	3	5	5	b4022	rluF	4228377	4229249	equal	
pORF+_4231775	4231775	4233430	1656	+	2	28	59	90	128	540	828	1210	b4025	pgi	4231781	4233430	inside	
pORF+_4237509	4237509	4237673	165	+	3	0	1	1	1	3	3	3						FP
pORF+_4244717	4244717	4245922	1206	+	2	3	5	7	9	17	22	30	b4035	malK	4244807	4245922	inside	
pORF+_4245994	4245994	4247334	1341	+	1	3	4	4	4	2	2	2	b4036	lamB	4245994	4247334	equal	
pORF+_4247159	4247159	4247356	198	+	2	0	0	0	1	0	0	2						FP
pORF+_4247568	4247568	4248497	930	+	3	3	10	10	14	94	94	107	b4037	malM	4247577	4248497	inside	
pORF+_4250418	4250418	4251026	609	+	3	0	1	2	3	3	6	10	b4039	ubiC	4250529	4251026	inside	
pORF+_4254660	4254660	4255028	369	+	3	0	0	0	1	0	0	3	b4042	dgkA	4254660	4255028	equal	
pORF+_4255138	4255138	4255746	609	+	1	2	9	11	18	84	91	110	b4043	lexA	4255138	4255746	equal	
pORF+_4257254	4257254	4257469	216	+	2	2	8	9	13	16	18	36	b4045	yjbJ	4257260	4257469	inside	
pORF+_4259686	4259686	4260729	1044	+	1	2	4	12	18	8	30	45	b4049	dusA	4259737	4260729	inside	
pORF+_4262337	4262337	4263752	1416	+	3	0	8	10	13	63	69	78	b4052	dnaB	4262337	4263752	equal	
pORF+_4263805	4263805	4264884	1080	+	1	0	2	6	6	5	15	15	b4053	alr	4263805	4264884	equal	
pORF+_4265095	4265095	4266330	1236	+	1	9	24	42	54	183	298	368	b4054	tyrB	4265137	4266330	inside	
pORF+_4267197	4267197	4268150	954	+	3	0	5	5	5	60	60	60	b4055	aphA	4267437	4268150	inside	
pORF+_4268261	4268261	4268677	417	+	2	0	0	0	1	0	0	3	b4056	yjbQ	4268261	4268677	equal	
pORF+_4268681	4268681	4269037	357	+	2	0	0	1	2	0	4	6	b4057	yjbR	4268681	4269037	equal	
pORF+_4272085	4272085	4272684	600	+	1	6	13	18	24	553	564	588	b4059	ssb	4272148	4272684	inside	
pORF+_4276502	4276502	4277851	1350	+	2	0	1	4	6	2	14	23	b4064	yjcD	4276502	4277851	equal	
pORF+_4278003	4278003	4279652	1650	+	3	1	4	6	7	6	11	13	b4065	yjcE	4278003	4279652	equal	
pORF+_4285754	4285754	4287223	1470	+	2	0	2	2	2	4	4	4	b4070	nrfA	4285787	4287223	inside	
pORF+_4289511	4289511	4291193	1683	+	3	0	1	1	1	2	2	2	b4074	nrfE	4289535	4291193	inside	
pORF+_4292504	4292504	4293817	1314	+	2	0	0	1	2	0	3	5	b4077	gltP	4292504	4293817	equal	
pORF+_4314135	4314135	4315418	1284	+	3	0	1	1	1	5	5	5						FP
pORF+_4314308	4314308	4314679	372	+	2	0	1	1	1	2	2	2						FP
pORF+_4316176	4316176	4316706	531	+	1	0	1	1	1	7	7	7						FP
pORF+_4322563	4322563	4322748	186	+	1	0	1	1	1	8	8	8						FP
pORF+_4327383	4327383	4328261	879	+	3	0	1	2	2	2	4	4	b4110	yjcZ	4327383	4328261	equal	

pORF_+_4328492	4328492	4330027	1536	+	2	4	4	7	12	0	11	29	b4111	proP	4328525	4330027	inside	
pORF_+_4333979	4333979	4334161	183	+	2	0	1	1	1	2	2	2						FP
pORF_+_4335582	4335582	4335758	177	+	3	0	0	1	1	0	3	3						FP
pORF_+_4339934	4339934	4341289	1356	+	2	0	0	0	3	0	0	10	b4119	melA	4339934	4341289	equal	
pORF_+_4349801	4349801	4350052	252	+	2	0	1	1	1	2	2	2						FP
pORF_+_4349866	4349866	4350096	231	+	1	0	1	1	1	2	2	2	b4126	yjdI	4349866	4350096	equal	
pORF_+_4359356	4359356	4359541	186	+	2	0	0	1	1	0	2	2						FP
pORF_+_4363502	4363502	4363648	147	+	2	0	1	1	1	15	15	15						FP
pORF_+_4368711	4368711	4369004	294	+	3	7	29	34	43	2105	2258	2393	b4142	groS	4368711	4369004	equal	
pORF_+_4369048	4369048	4370694	1647	+	1	44	212	267	333	15599	24080	31373	b4143	groL	4369048	4370694	equal	
pORF_+_4370799	4370799	4371185	387	+	3	0	2	5	8	23	41	58	b4144	yjeI	4370832	4371185	inside	
pORF_+_4373722	4373722	4374288	567	+	1	4	14	17	20	322	357	384	b4147	efp	4373722	4374288	equal	
pORF_+_4374340	4374340	4374465	126	+	1	0	0	1	1	0	2	2	b4410	ecnA	4374340	4374465	equal	
pORF_+_4374576	4374576	4374722	147	+	3	0	2	4	7	22	40	59	b4411	ecnB	4374576	4374722	equal	
pORF_+_4380621	4380621	4381643	1023	+	3	4	4	7	9	0	9	17	b4155	poxA	4380666	4381643	inside	
pORF_+_4389483	4389483	4390172	690	+	3	8	10	14	21	31	42	64	b4162	orn	4389627	4390172	inside	
pORF_+_4392068	4392068	4393636	1569	+	2	0	3	6	9	16	24	31	b4167	yjeF	4392089	4393636	inside	
pORF_+_4393608	4393608	4394069	462	+	3	0	1	2	3	6	11	16	b4168	yjeE	4393608	4394069	equal	
pORF_+_4394073	4394073	4395425	1353	+	3	0	2	3	3	10	12	12	b4169	amiB	4394088	4395425	inside	
pORF_+_4395432	4395432	4397282	1851	+	3	0	0	1	2	0	3	7	b4170	mutL	4395435	4397282	inside	
pORF_+_4397275	4397275	4398225	951	+	1	0	0	2	2	0	5	5	b4171	miaA	4397275	4398225	equal	
pORF_+_4398311	4398311	4398619	309	+	2	7	15	16	16	279	284	284	b4172	hfq	4398311	4398619	equal	
pORF_+_4398695	4398695	4399975	1281	+	2	3	8	16	23	73	103	122	b4173	hflX	4398695	4399975	equal	
pORF_+_4400061	4400061	4401320	1260	+	3	7	18	33	48	235	327	426	b4174	hflK	4400061	4401320	equal	
pORF_+_4401323	4401323	4402327	1005	+	2	5	27	45	62	750	1026	1211	b4175	hflC	4401323	4402327	equal	
pORF_+_4402710	4402710	4404008	1299	+	3	25	81	109	137	1644	1815	2026	b4177	purA	4402710	4404008	equal	
pORF_+_4404213	4404213	4404638	426	+	3	0	1	2	3	19	22	25	b4178	nsrR	4404213	4404638	equal	
pORF_+_4404635	4404635	4407118	2484	+	2	8	10	30	56	18	90	222	b4179	rnr	4404677	4407118	inside	
pORF_+_4407298	4407298	4408029	732	+	1	2	6	12	20	18	41	82	b4180	rlmB	4407298	4408029	equal	
pORF_+_4411036	4411036	4412214	1179	+	1	0	0	0	1	0	0	2	b4186	yjfC	4411051	4412214	inside	
pORF_+_4412280	4412280	4413923	1644	+	3	0	0	2	9	0	5	27	b4187	aidB	4412298	4413923	inside	
pORF_+_4414975	4414975	4415724	750	+	1	0	0	0	2	0	0	5	b4190	yjfP	4414975	4415724	equal	
pORF_+_4420011	4420011	4420859	849	+	3	0	1	1	1	9	9	9	b4196	ulaD	4420209	4420859	inside	
pORF_+_4423141	4423141	4423536	396	+	1	10	80	95	110	4961	5269	5579	b4200	rpsF	4423141	4423536	equal	
pORF_+_4423862	4423862	4424089	228	+	2	5	26	33	40	1893	2047	2255	b4202	rpsR	4423862	4424089	equal	
pORF_+_4424131	4424131	4424580	450	+	1	10	61	75	91	6471	7624	8516	b4203	rplI	4424131	4424580	equal	
pORF_+_4426799	4426799	4427578	780	+	2	11	31	39	48	600	644	692	b4207	flkI	4426958	4427578	inside	
pORF_+_4427887	4427887	4429299	1413	+	1	0	3	5	7	19	29	33	b4208	cycA	4427887	4429299	equal	
pORF_+_4434778	4434778	4435518	741	+	1	2	9	10	18	23	25	54	b4214	cysQ	4434778	4435518	equal	
pORF_+_4440405	4440405	4442138	1734	+	3	0	0	5	9	0	13	23	b4220	ytfM	4440405	4442138	equal	
pORF_+_4442135	4442135	4445914	3780	+	2	3	5	8	11	5	15	22	b4221	ytfN	4442135	4445914	equal	
pORF_+_4445917	4445917	4446258	342	+	1	1	1	2	3	0	3	5	b4222	ytfP	4445917	4446258	equal	
pORF_+_4447985	4447985	4448941	957	+	2	0	8	10	23	46	50	218	b4227	ytfQ	4447985	4448941	equal	
pORF_+_4449081	4449081	4450583	1503	+	3	0	1	1	4	4	4	12	b4485	ytfR	4449081	4450583	equal	
pORF_+_4453808	4453808	4455181	1374	+	2	0	7	16	25	101	135	177	b4233	mpl	4453808	4455181	equal	
pORF_+_4455982	4455982	4457334	1353	+	1	10	38	57	75	423	530	613	b4235	pmbA	4455982	4457334	equal	



pORF+_4462113	4462113	4462256	144	+	3	0	1	1	1	4	4	4							FP
pORF+_4465648	4465648	4468344	2697	+	1	11	15	19	20	9	17	19	b4242	mgta	4465648	4468344	equal		
pORF+_4469464	4469464	4469775	312	+	1	0	1	1	1	11	11	11							FP
pORF+_4472147	4472147	4472740	594	+	2	0	0	3	4	0	7	9	b4251	yjgJ	4472147	4472740	equal		
pORF+_4472876	4472876	4473337	462	+	2	2	6	10	14	77	87	114	b4252	yjgK	4472885	4473337	inside		
pORF+_4476496	4476496	4476912	417	+	1	3	5	8	11	77	106	141	b4255	rraB	4476496	4476912	equal		
pORF+_4484241	4484241	4485341	1101	+	3	0	0	2	5	0	12	28	b4261	yjgP	4484241	4485341	equal		
pORF+_4485338	4485338	4486423	1086	+	2	0	0	2	6	0	4	15	b4262	yjgQ	4485341	4486423	inside		
pORF+_4494773	4494773	4495963	1191	+	2	1	1	2	2	0	2	2	b4271	intB	4494698	4495963	contain		
pORF+_4503295	4503295	4504428	1134	+	1	0	0	2	4	0	4	9	b4280	yjhC	4503310	4504428	inside		
pORF+_4518072	4518072	4518410	339	+	3	0	0	0	1	0	0	3							FP
pORF+_4519301	4519301	4519774	474	+	2	0	1	1	1	2	2	2							FP
pORF+_4528688	4528688	4528858	171	+	2	0	0	1	1	0	2	2							FP
pORF+_4538950	4538950	4539582	633	+	1	0	0	1	1	0	2	2	b4312	fimB	4538980	4539582	inside		
pORF+_4541138	4541138	4541686	549	+	2	0	11	11	11	620	620	620	b4314	fimA	4541138	4541686	equal		
pORF+_4542327	4542327	4543052	726	+	3	0	5	6	7	15	18	20	b4316	fimC	4542327	4543052	equal		
pORF+_4545277	4545277	4545432	156	+	1	0	1	1	1	2	2	2							FP
pORF+_4546822	4546822	4547733	912	+	1	0	1	1	1	2	2	2	b4320	fimH	4546831	4547733	inside		
pORF+_4548868	4548868	4548972	105	+	1	0	1	1	1	2	2	2							FP
pORF+_4549623	4549623	4550843	1221	+	3	0	1	3	7	2	7	16	b4322	uxuA	4549659	4550843	inside		
pORF+_4550924	4550924	4552384	1461	+	2	0	0	1	3	0	2	7	b4323	uxuB	4550924	4552384	equal		
pORF+_4552599	4552599	4553372	774	+	3	0	1	1	1	5	5	5	b4324	uxuR	4552599	4553372	equal		
pORF+_4555957	4555957	4556022	66	+	1	0	1	1	1	2	2	2							FP
pORF+_4559680	4559680	4560006	327	+	1	0	1	1	1	2	2	2							FP
pORF+_4564180	4564180	4564329	150	+	1	0	1	1	1	2	2	2							FP
pORF+_4579842	4579842	4580840	999	+	3	0	0	1	1	0	3	3							FP
pORF+_4580841	4580841	4581140	300	+	3	0	0	1	1	0	2	2							FP
pORF+_4583111	4583111	4583557	447	+	2	0	0	1	1	0	2	2							FP
pORF+_4584972	4584972	4585886	915	+	3	0	4	5	6	32	34	37	b4351	mrr	4584972	4585886	equal		
pORF+_4589021	4589021	4589221	201	+	2	0	1	1	1	2	2	2							FP
pORF+_4589680	4589680	4591335	1656	+	1	0	33	50	58	1163	1304	1343	b4355	tsr	4589680	4591335	equal		
pORF+_4605826	4605826	4606239	414	+	1	0	2	2	2	16	16	16	b4372	holD	4605826	4606239	equal		
pORF+_4606208	4606208	4606654	447	+	2	0	0	1	1	0	4	4	b4373	rimI	4606208	4606654	equal		
pORF+_4606669	4606669	4607346	678	+	1	0	0	1	1	0	2	2	b4374	yjjG	4606669	4607346	equal		
pORF+_4606691	4606691	4606894	204	+	2	0	1	1	1	3	3	3							FP
pORF+_4607410	4607410	4609026	1617	+	1	14	29	44	61	206	278	342	b4375	prfC	4607437	4609026	inside		
pORF+_4609341	4609341	4610024	684	+	3	6	40	51	66	652	756	996	b4376	osmY	4609419	4610024	inside		
pORF+_4611504	4611504	4612283	780	+	3	0	1	3	5	2	6	13	b4378	yjjV	4611504	4612283	equal		
pORF+_4615322	4615322	4616125	804	+	2	26	40	51	63	138	177	233	b4381	deoC	4615346	4616125	inside		
pORF+_4616252	4616252	4617574	1323	+	2	30	36	45	58	61	120	198	b4382	deoA	4616252	4617574	equal		
pORF+_4617626	4617626	4618849	1224	+	2	23	40	55	75	181	250	381	b4383	deoB	4617626	4618849	equal		
pORF+_4618849	4618849	4619625	777	+	1	22	54	68	82	1009	1128	1501	b4384	deoD	4618906	4619625	inside		
pORF+_4622780	4622780	4623886	1107	+	2	0	1	4	6	4	13	18	b4388	serB	4622918	4623886	inside		
pORF+_4623887	4623887	4625317	1431	+	2	0	1	5	7	3	14	18	b4389	radA	4623935	4625317	inside		
pORF+_4624843	4624843	4625130	288	+	1	0	0	0	1	0	0	5							FP
pORF+_4625317	4625317	4626570	1254	+	1	0	0	4	10	0	8	25	b4390	nadR	4625338	4626570	inside		

pORF_+_4628726	4628726	4630693	1968	+	2	0	3	3	10	7	7	23	b4392	slt	4628756	4630693	inside	
pORF_+_4630783	4630783	4631109	327	+	1	0	1	4	6	2	15	23	b4393	trpR	4630783	4631109	equal	
pORF_+_4631820	4631820	4632467	648	+	3	1	5	13	15	48	70	75	b4395	ytjC	4631820	4632467	equal	
pORF_+_4632752	4632752	4632982	231	+	2	0	1	1	1	9	9	9						FP
pORF_+_4633544	4633544	4634017	474	+	2	3	3	8	10	0	17	23	b4397	creA	4633544	4634017	equal	
pORF_+_4634030	4634030	4634719	690	+	2	1	1	1	1	0	0	0	b4398	creB	4634030	4634719	equal	
pORF_+_4634719	4634719	4636143	1425	+	1	0	0	1	3	0	2	6	b4399	creC	4634719	4636143	equal	
pORF_+_4638944	4638944	4639651	708	+	2	2	2	6	9	0	9	15	b4403	yjtD	4638965	4639651	inside	
pORF_-_2503	2503	2685	183	-	5	0	1	1	1	2	2	2						FP
pORF_-_5683	5683	6459	777	-	5	2	5	10	17	11	36	59	b0006	yaaA	5683	6459	equal	
pORF_-_20815	20815	21078	264	-	5	7	62	69	75	2980	3070	3135	b0023	rpsT	20815	21078	equal	
pORF_-_34336	34336	34554	219	-	5	0	1	1	1	2	2	2						FP
pORF_-_45313	45313	45786	474	-	5	0	1	1	1	2	2	2						FP
pORF_-_50380	50380	51222	843	-	5	0	0	1	3	0	4	9	b0049	apaH	50380	51222	equal	
pORF_-_51609	51609	52430	822	-	4	5	9	12	16	16	39	68	b0051	ksgA	51609	52430	equal	
pORF_-_52427	52427	53416	990	-	6	0	1	4	4	2	9	9	b0052	pdxA	52427	53416	equal	
pORF_-_53416	53416	54702	1287	-	5	14	36	51	65	793	841	899	b0053	surA	53416	54702	equal	
pORF_-_54755	54755	57109	2355	-	6	14	20	42	67	34	130	247	b0054	imp	54755	57109	equal	
pORF_-_59687	59687	60403	717	-	6	0	0	1	1	0	2	2	b0058	rluA	59687	60346	inside	
pORF_-_60358	60358	63264	2907	-	5	12	18	38	59	96	167	261	b0059	hepA	60358	63264	equal	
pORF_-_65855	65855	66550	696	-	6	2	2	2	2	0	0	0	b0061	araD	65855	66550	equal	
pORF_-_66835	66835	68361	1527	-	5	21	21	21	23	0	0	7	b0062	araA	66835	68337	inside	
pORF_-_68348	68348	70048	1701	-	6	12	13	13	13	2	2	2	b0063	araB	68348	70048	equal	
pORF_-_72229	72229	72948	720	-	5	1	1	2	2	0	3	3	b0066	thiQ	72229	72927	inside	
pORF_-_72911	72911	74521	1611	-	6	0	1	1	1	2	2	2	b0067	thiP	72911	74521	equal	
pORF_-_73725	73725	73958	234	-	4	0	0	1	1	0	3	3						FP
pORF_-_74497	74497	75492	996	-	5	11	16	28	38	46	97	142	b0068	tbpA	74497	75480	inside	
pORF_-_75644	75644	77320	1677	-	6	0	1	1	1	108	108	108	b0069	sgrR	75644	77299	inside	
pORF_-_78848	78848	79453	606	-	6	5	26	35	38	1065	1137	1145	b0071	leuD	78848	79453	equal	
pORF_-_79464	79464	80864	1401	-	4	10	48	69	75	2053	2262	2289	b0072	leuC	79464	80864	equal	
pORF_-_80867	80867	81961	1095	-	6	6	22	38	57	908	1085	1217	b0073	leuB	80867	81958	inside	
pORF_-_81958	81958	83529	1572	-	5	16	57	91	127	1255	2040	2825	b0074	leuA	81958	83529	equal	
pORF_-_95091	95091	95213	123	-	4	0	0	1	2	0	13	26						FP
pORF_-_95138	95138	95404	267	-	6	0	2	2	2	6	6	6						FP
pORF_-_100486	100486	100668	183	-	5	0	1	1	1	6	6	6						FP
pORF_-_102408	102408	102515	108	-	4	0	0	1	1	0	2	2						FP
pORF_-_111564	111564	111698	135	-	4	0	1	1	1	2	2	2						FP
pORF_-_111649	111649	111846	198	-	5	0	0	2	4	0	6	11	b0101	yacG	111649	111846	equal	
pORF_-_111856	111856	112599	744	-	5	2	3	6	8	8	17	21	b0102	yacF	111856	112599	equal	
pORF_-_112577	112577	112768	192	-	6	0	1	1	1	2	2	2						FP
pORF_-_112599	112599	113219	621	-	4	0	1	4	6	9	18	24	b0103	coaE	112599	113219	equal	
pORF_-_117752	117752	118687	936	-	6	0	8	14	23	152	174	204	b0109	nadC	117752	118645	inside	
pORF_-_120178	120178	121551	1374	-	5	0	2	5	8	22	31	39	b0112	aroP	120178	121551	equal	
pORF_-_123266	123266	125539	2274	-	6	0	0	1	1	0	9	9						FP
pORF_-_134788	134788	135582	795	-	5	8	17	29	37	227	321	380	b0120	speD	134788	135582	equal	
pORF_-_135598	135598	136464	867	-	5	3	7	15	20	17	78	120	b0121	speE	135598	136464	equal	

pORF_-_136570	136570	137088	519	-	5	0	1	1	1	2	2	2	b0122	yacC	136570	136917	inside	
pORF_-_138835	138835	141243	2409	-	5	14	14	18	34	0	8	58	b0124	gcd	138835	141225	inside	
pORF_-_142008	142008	142670	663	-	4	10	18	29	37	216	310	367	b0126	can	142008	142670	equal	
pORF_-_146314	146314	146694	381	-	5	3	12	19	23	422	459	481	b0131	panD	146314	146694	equal	
pORF_-_147944	147944	148795	852	-	6	10	27	42	57	393	477	567	b0133	panC	147944	148795	equal	
pORF_-_148807	148807	149601	795	-	5	8	26	43	56	460	738	932	b0134	panB	148807	149601	equal	
pORF_-_152829	152829	155426	2598	-	4	2	3	3	3	3	3	3	b0139	htrE	152829	155426	equal	
pORF_-_157253	157253	157732	480	-	6	0	2	2	2	15	15	15	b0142	folK	157253	157732	equal	
pORF_-_157729	157729	159147	1419	-	5	3	5	11	15	7	31	44	b0143	pcnB	157729	159126	inside	
pORF_-_160149	160149	160622	474	-	4	5	21	29	34	381	431	474	b0145	dksA	160149	160604	inside	
pORF_-_168599	168599	168745	147	-	6	0	1	1	1	2	2	2						FP
pORF_-_173602	173602	174882	1281	-	5	10	25	37	50	560	627	672	b0154	hemL	173602	174882	equal	
pORF_-_178455	178455	179153	699	-	4	5	23	32	42	645	772	1045	b0159	mtn	178455	179153	equal	
pORF_-_183709	183709	184095	387	-	5	5	28	37	50	543	574	641	b0163	yaeH	183709	184095	equal	
pORF_-_183762	183762	183917	156	-	4	0	1	1	1	2	2	2						FP
pORF_-_184257	184257	185069	813	-	4	0	1	1	1	2	2	2	b0164	yaeI	184257	185069	equal	
pORF_-_185123	185123	185947	825	-	6	17	51	71	92	2367	2652	3072	b0166	dapD	185123	185947	equal	
pORF_-_185978	185978	188650	2673	-	6	0	0	8	12	0	18	33	b0167	glnD	185978	188650	equal	
pORF_-_188712	188712	189506	795	-	4	6	28	43	54	788	878	947	b0168	map	188712	189506	equal	
pORF_-_189242	189242	189415	174	-	6	0	1	1	1	4	4	4						FP
pORF_-_189868	189868	190383	516	-	5	0	0	0	1	0	0	3						FP
pORF_-_190551	190551	191603	1053	-	4	0	1	1	1	19	19	19						FP
pORF_-_192202	192202	192402	201	-	5	0	1	1	1	2	2	2						FP
pORF_-_207222	207222	207335	114	-	4	0	0	1	1	0	6	6						FP
pORF_-_208552	208552	209487	936	-	5	0	1	1	1	6	6	6						FP
pORF_-_209874	209874	210776	903	-	4	0	1	1	1	3	3	3						FP
pORF_-_213678	213678	213938	261	-	4	0	1	3	6	3	20	33	b0189	rof	213678	213932	inside	
pORF_-_213925	213925	214143	219	-	5	0	3	4	5	21	24	29	b4406	yaeP	213925	214125	inside	
pORF_-_214216	214216	214386	171	-	5	0	1	1	1	4	4	4						FP
pORF_-_217057	217057	218829	1773	-	5	29	83	114	151	2468	2669	2918	b0194	proS	217057	218775	inside	
pORF_-_218887	218887	219594	708	-	5	0	0	1	2	0	2	4	b0195	yaeB	218887	219594	equal	
pORF_-_219591	219591	219995	405	-	4	2	3	8	12	3	61	113	b0196	rceF	219591	219995	equal	
pORF_-_220113	220113	220928	816	-	4	8	46	62	76	2138	2354	2546	b0197	metQ	220113	220928	equal	
pORF_-_220968	220968	221621	654	-	4	0	0	1	2	0	6	8	b0198	metI	220968	221621	equal	
pORF_-_221614	221614	222645	1032	-	5	1	7	19	28	61	112	144	b0199	metN	221614	222645	equal	
pORF_-_229967	229967	230881	915	-	6	0	0	1	2	0	2	7	b0208	yafC	229967	230881	equal	
pORF_-_234027	234027	234782	756	-	4	0	0	2	8	0	5	19	b0212	gloB	234027	234782	equal	
pORF_-_235535	235535	236113	579	-	6	0	0	0	1	0	0	2	b0214	rnhA	235535	236002	inside	
pORF_-_239419	239419	240198	780	-	5	0	0	2	5	0	5	14	b0219	yafV	239419	240189	inside	
pORF_-_240859	240859	243381	2523	-	5	0	6	14	40	47	87	428	b0221	fadE	240859	243303	inside	
pORF_-_246242	246242	246502	261	-	6	0	3	5	7	52	57	65	b0226	dinJ	246242	246502	equal	
pORF_-_254259	254259	255716	1458	-	4	19	38	58	77	744	862	995	b0237	pepD	254259	255716	equal	
pORF_-_258269	258269	259330	1062	-	6	14	16	16	16	40	40	40	b0241	phoE	258269	259324	inside	
pORF_-_262914	262914	263231	318	-	4	0	1	1	1	2	2	2	b0246	yafW	262914	263231	equal	
pORF_-_264844	264844	265311	468	-	5	0	1	1	1	2	2	2	b0250	ykfB	264844	265311	equal	
pORF_-_269475	269475	269636	162	-	4	0	1	1	1	2	2	2						FP

pORF_-_273325	273325	274341	1017	-	5	0	0	46	46	0	158	158	b0259	insH	273325	274341	equal	
pORF_-_274642	274642	275151	510	-	5	0	1	1	1	2	2	2						FP
pORF_-_282257	282257	283333	1077	-	6	0	0	0	1	0	0	2						FP
pORF_-_283483	283483	283950	468	-	5	0	1	1	1	11	11	11						FP
pORF_-_284717	284717	284887	171	-	6	0	0	1	1	0	2	2						FP
pORF_-_285998	285998	286474	477	-	6	0	1	1	1	3	3	3						FP
pORF_-_286487	286487	286969	483	-	6	0	0	0	1	0	0	3						FP
pORF_-_287628	287628	288386	759	-	4	0	0	1	4	0	3	10	b0272	yagI	287628	288386	equal	
pORF_-_288525	288525	289529	1005	-	4	0	24	39	52	1037	1183	1258	b0273	argF	288525	289529	equal	
pORF_-_294920	294920	296323	1404	-	6	0	0	3	3	0	10	10	b0281	intF	294920	296320	inside	
pORF_-_296994	296994	297950	957	-	4	0	1	1	1	9	9	9	b0283	yagQ	296994	297950	equal	
pORF_-_299084	299084	299284	201	-	6	0	1	1	1	2	2	2						FP
pORF_-_300155	300155	301111	957	-	6	0	1	1	1	2	2	2	b0285	yagS	300155	301111	equal	
pORF_-_306031	306031	308556	2526	-	5	0	1	1	1	7	7	7	b0291	yagX	306031	308556	equal	
pORF_-_309308	309308	309895	588	-	6	0	1	1	1	2	2	2	b0293	matB	309308	309895	equal	
pORF_-_311598	311598	311741	144	-	4	0	3	4	5	8	10	16	b4506	ykgO	311598	311738	inside	
pORF_-_311738	311738	312004	267	-	6	0	16	21	30	407	490	691	b0296	ykgM	311738	312001	inside	
pORF_-_317900	317900	319252	1353	-	6	0	0	1	6	0	3	21	b0304	ykgC	317900	319225	inside	
pORF_-_326485	326485	327960	1476	-	5	1	1	8	11	0	18	28	b0312	betB	326485	327957	inside	
pORF_-_327971	327971	328576	606	-	6	0	1	1	1	2	2	2	b0313	betI	327971	328558	inside	
pORF_-_336443	336443	336745	303	-	6	0	1	1	1	3	3	3						FP
pORF_-_336917	336917	337318	402	-	6	0	2	3	3	11	35	35						FP
pORF_-_346081	346081	347679	1599	-	5	0	0	1	1	0	3	3	b0330	prpR	346081	347667	inside	
pORF_-_346590	346590	346937	348	-	4	0	1	1	1	2	2	2						FP
pORF_-_349663	349663	349782	120	-	5	0	1	1	1	4	4	4						FP
pORF_-_360473	360473	361135	663	-	6	1	1	1	1	0	0	0	b0342	lacA	360473	361084	inside	
pORF_-_361150	361150	362403	1254	-	5	0	1	1	1	4	4	4	b0343	lacY	361150	362403	equal	
pORF_-_365652	365652	366743	1092	-	4	0	1	3	4	3	12	17	b0345	lacI	365652	366734	inside	
pORF_-_366811	366811	367758	948	-	5	0	0	1	1	0	2	2	b0346	mhpR	366811	367644	inside	
pORF_-_376759	376759	377592	834	-	5	0	0	3	3	0	7	7	b0355	frmB	376759	377592	equal	
pORF_-_377686	377686	378795	1110	-	5	3	8	17	20	53	102	113	b0356	frmA	377686	378795	equal	
pORF_-_378830	378830	379126	297	-	6	0	3	4	4	7	10	10	b0357	frmR	378830	379105	inside	
pORF_-_384278	384278	384502	225	-	6	0	0	0	1	0	0	4						FP
pORF_-_387977	387977	388984	1008	-	6	10	23	33	43	285	339	391	b0369	hemB	387977	388951	inside	
pORF_-_390963	390963	391829	867	-	4	0	0	0	5	0	0	10	b0372	insF	390963	391829	equal	
pORF_-_391826	391826	392134	309	-	6	0	0	5	10	0	10	35	b0373	insE	391826	392134	equal	
pORF_-_394354	394354	395511	1158	-	5	0	0	2	3	0	4	7	b0376	ampH	394354	395511	equal	
pORF_-_395832	395832	395978	147	-	4	0	1	1	1	5	5	5						FP
pORF_-_399053	399053	400147	1095	-	6	8	15	22	30	54	79	115	b0381	ddlA	399053	400147	equal	
pORF_-_402193	402193	402477	285	-	5	0	0	0	1	0	0	2						FP
pORF_-_403223	403223	403474	252	-	6	0	1	1	1	3	3	3						FP
pORF_-_404059	404059	404976	918	-	5	4	11	23	31	107	153	186	b0386	proC	404059	404868	inside	
pORF_-_408332	408332	409315	984	-	6	4	12	19	27	195	251	300	b0393	rdgC	408332	409243	inside	
pORF_-_411831	411831	414977	3147	-	4	0	0	1	2	0	3	5	b0397	sbcC	411831	414977	equal	
pORF_-_414974	414974	416218	1245	-	6	0	0	1	1	0	2	2	b0398	sbcD	414974	416176	inside	
pORF_-_428505	428505	428735	231	-	4	0	1	1	1	8	8	8						FP

pORF_-_430353	430353	431285	933	-	4	8	10	24	33	6	73	132	b0411	tsx	430353	431237	inside	
pORF_-_431456	431456	431515	60	-	6	0	1	1	1	2	2	2						FP
pORF_-_435906	435906	436364	459	-	4	0	1	2	2	4	10	10						FP
pORF_-_436385	436385	437431	1047	-	6	0	8	14	27	78	95	160	b0419	yajO	436385	437359	inside	
pORF_-_437539	437539	439401	1863	-	5	0	4	8	13	15	30	44	b0420	dxs	437539	439401	equal	
pORF_-_439426	439426	440325	900	-	5	0	11	14	17	222	231	240	b0421	ispA	439426	440325	equal	
pORF_-_440325	440325	440567	243	-	4	1	9	11	15	339	347	362	b0422	xseB	440325	440567	equal	
pORF_-_442275	442275	442871	597	-	4	2	4	7	11	29	43	53	b0424	yajL	442275	442865	inside	
pORF_-_442828	442828	443739	912	-	5	0	0	5	8	0	15	27	b0425	panE	442828	443739	equal	
pORF_-_443193	443193	443381	189	-	4	0	1	1	1	65	65	65						FP
pORF_-_447874	447874	449865	1992	-	5	3	4	9	13	10	59	133	b0431	cyoB	447874	449865	equal	
pORF_-_449887	449887	450834	948	-	5	5	20	29	38	686	752	847	b0432	cyoA	449887	450834	equal	
pORF_-_450027	450027	450167	141	-	4	0	1	1	1	3	3	3						FP
pORF_-_451294	451294	452769	1476	-	5	0	0	0	1	0	0	3	b0433	ampG	451294	452769	equal	
pORF_-_452813	452813	453550	738	-	6	6	12	17	22	131	233	320	b0434	yajG	452813	453391	inside	
pORF_-_458531	458531	458755	225	-	6	0	1	1	1	2	2	2						FP
pORF_-_461314	461314	461454	141	-	5	0	0	0	1	0	0	3						FP
pORF_-_464076	464076	464771	696	-	4	0	2	8	12	21	56	68	b0444	queC	464076	464771	equal	
pORF_-_464836	464836	466551	1716	-	5	0	0	0	1	0	0	2	b0445	ybaE	464836	466536	inside	
pORF_-_473525	473525	474403	879	-	6	3	6	9	13	10	17	30	b0452	tesB	473525	474385	inside	
pORF_-_476291	476291	477847	1557	-	6	0	0	1	1	0	2	2	b0457	ylaB	476291	477841	inside	
pORF_-_478591	478591	479142	552	-	5	0	1	2	3	3	8	11	b0459	maa	478591	479142	equal	
pORF_-_479314	479314	479778	465	-	5	0	0	1	1	0	2	2	b0460	hha	479314	479532	inside	
pORF_-_480478	480478	483627	3150	-	5	12	14	26	43	4	39	104	b0462	acrB	480478	483627	equal	
pORF_-_483650	483650	484879	1230	-	6	9	34	52	69	924	1037	1160	b0463	acrA	483650	484843	inside	
pORF_-_485777	485777	485848	72	-	6	0	0	1	1	0	6	6						FP
pORF_-_489509	489509	490036	528	-	6	0	1	4	4	8	15	15	b0467	priC	489509	490036	equal	
pORF_-_494415	494415	494651	237	-	4	0	0	0	1	0	0	2						FP
pORF_-_500594	500594	500689	96	-	6	0	0	1	1	0	2	2						FP
pORF_-_500786	500786	502462	1677	-	6	0	2	5	6	10	19	22	b0478	ybaL	500786	502462	equal	
pORF_-_505827	505827	506306	480	-	4	3	4	16	26	2	37	83	b0481	ybaK	505827	506306	equal	
pORF_-_508099	508099	510603	2505	-	5	1	15	30	45	186	250	323	b0484	copA	508099	510603	equal	
pORF_-_509669	509669	509950	282	-	6	0	0	1	2	0	6	12						FP
pORF_-_512304	512304	512348	45	-	4	0	1	1	1	2	2	2						FP
pORF_-_514080	514080	514997	918	-	4	0	2	4	12	25	38	68	b0489	qmcA	514080	514997	equal	
pORF_-_516649	516649	517539	891	-	5	10	12	22	32	43	115	185	b0492	ybbN	516649	517503	inside	
pORF_-_517564	517564	518373	810	-	5	0	1	1	2	5	5	8	b0493	ybbO	517564	518373	equal	
pORF_-_518363	518363	519019	657	-	6	2	3	4	8	6	10	21	b0494	tesA	518363	518989	inside	
pORF_-_523000	523000	523506	507	-	5	0	0	1	2	0	4	8						FP
pORF_-_529356	529356	530450	1095	-	4	0	0	1	1	0	3	3	b0503	ybbB	529356	530450	equal	
pORF_-_542485	542485	543270	786	-	5	0	0	4	8	0	9	22	b0515	ylbA	542485	543270	equal	
pORF_-_548168	548168	548860	693	-	6	0	1	1	1	15	15	15						FP
pORF_-_550750	550750	551817	1068	-	5	6	13	20	26	21	45	81	b0522	purK	550750	551817	equal	
pORF_-_551814	551814	552350	537	-	4	4	13	19	26	557	608	659	b0523	purE	551814	552323	inside	
pORF_-_553166	553166	553660	495	-	6	9	27	36	49	968	1060	1163	b0525	ppiB	553166	553660	equal	
pORF_-_554007	554007	554225	219	-	4	0	1	1	1	3	3	3						FP

pORF_-_555640	555640	555915	276	-	5	0	1	1	1	26	26	26						FP
pORF_-_555884	555884	556150	267	-	6	2	3	4	5	2	6	10	b0528 ybcJ	555884	556096	inside		
pORF_-_556098	556098	556964	867	-	4	6	20	30	38	610	670	729	b0529 folD	556098	556964	equal		
pORF_-_564038	564038	565201	1164	-	6	2	2	2	2	0	0	0	b0537 intD	564038	565201	equal		
pORF_-_572166	572166	572504	339	-	4	0	1	1	1	4	4	4						FP
pORF_-_573960	573960	574976	1017	-	4	0	0	46	46	0	158	158	b0552 insH	573960	574976	equal		
pORF_-_574981	574981	576108	1128	-	5	10	10	10	10	0	0	0	b0553 nmpC	575009	576048	inside		
pORF_-_577823	577823	578116	294	-	6	0	2	5	6	24	44	46	b0557 borD	577823	578116	equal		
pORF_-_583903	583903	584856	954	-	5	18	36	60	81	487	895	1139	b0565 ompT	583903	584856	equal		
pORF_-_586314	586314	587204	891	-	4	0	0	2	2	0	4	4	b0567 ybcH	586314	587204	equal		
pORF_-_587177	587177	587434	258	-	6	0	1	1	1	2	2	2						FP
pORF_-_587205	587205	590198	2994	-	4	0	1	2	3	2	4	6	b0568 nfrA	587205	590177	inside		
pORF_-_592551	592551	594005	1455	-	4	0	0	1	1	0	3	3	b0570 cusS	592551	593993	inside		
pORF_-_593983	593983	594666	684	-	5	0	2	2	2	17	17	17	b0571 cusR	593983	594666	equal		
pORF_-_595566	595566	595874	309	-	4	0	1	1	1	2	2	2						FP
pORF_-_600526	600526	600699	174	-	5	0	1	1	1	47	47	47						FP
pORF_-_603994	603994	604698	705	-	5	11	32	42	53	707	765	825	b0578 nfsB	603994	604647	inside		
pORF_-_604741	604741	605229	489	-	5	0	0	2	3	0	4	8	b0579 ybdF	604741	605109	inside		
pORF_-_605488	605488	606606	1119	-	5	0	0	1	5	0	2	14	b0581 ybdK	605488	606606	equal		
pORF_-_609477	609477	611777	2301	-	4	9	41	44	46	1262	1273	1280	b0584 fepA	609477	611717	inside		
pORF_-_614130	614130	614540	411	-	4	0	1	1	1	4	4	4						FP
pORF_-_618607	618607	619563	957	-	5	1	1	2	3	0	2	4	b0588 fepC	618607	619422	inside		
pORF_-_619747	619747	619875	129	-	5	0	1	1	1	8	8	8						FP
pORF_-_622777	622777	623733	957	-	5	0	2	5	7	7	18	24	b0592 fepB	622777	623733	equal		
pORF_-_625485	625485	625799	315	-	4	0	1	1	1	3	3	3						FP
pORF_-_631612	631612	632700	1089	-	5	0	2	4	7	5	10	17	b0599 ybdH	631612	632700	equal		
pORF_-_633797	633797	633892	96	-	6	1	1	1	1	0	0	0						FP
pORF_-_634572	634572	635792	1221	-	4	0	1	1	1	2	2	2	b0602 ybdN	634572	635792	equal		
pORF_-_637050	637050	637856	807	-	4	3	3	3	5	0	0	7	b0604 dsbG	637050	637796	inside		
pORF_-_640662	640662	641090	429	-	4	3	15	23	39	683	755	1037	b0607 uspG	640662	641090	equal		
pORF_-_641872	641872	641985	114	-	5	0	1	1	1	6	6	6						FP
pORF_-_642780	642780	643190	411	-	4	0	11	12	12	210	212	212	b0610 rnk	642780	643190	equal		
pORF_-_643420	643420	644244	825	-	5	4	9	12	17	16	26	42	b0611 rna	643420	644226	inside		
pORF_-_653806	653806	655191	1386	-	5	0	2	2	2	4	4	4	b0621 dcuC	653806	655191	equal		
pORF_-_656731	656731	656970	240	-	5	0	1	2	2	13	17	17						FP
pORF_-_658474	658474	659439	966	-	5	8	12	19	21	76	102	109	b0628 lipA	658474	659439	equal		
pORF_-_660860	660860	661501	642	-	6	0	2	4	5	27	32	35	b0630 lipB	660860	661501	equal		
pORF_-_661602	661602	661865	264	-	4	4	16	21	24	482	554	575	b0631 ybeD	661602	661865	equal		
pORF_-_661975	661975	663258	1284	-	5	12	26	39	57	115	173	258	b0632 dacA	661975	663186	inside		
pORF_-_663325	663325	664413	1089	-	5	0	8	16	22	120	148	175	b0633 rlpA	663325	664413	equal		
pORF_-_665539	665539	667440	1902	-	5	0	0	5	10	0	13	27	b0635 mrdA	665539	667440	equal		
pORF_-_667471	667471	667938	468	-	5	0	1	3	3	3	7	7	b0636 ybeA	667471	667938	equal		
pORF_-_667942	667942	668259	318	-	5	4	10	12	14	512	519	523	b0637 ybeB	667942	668259	equal		
pORF_-_668184	668184	668234	51	-	4	0	1	1	1	6	6	6						FP
pORF_-_669797	669797	670828	1032	-	6	0	0	1	1	0	2	2	b0640 holA	669797	670828	equal		
pORF_-_670828	670828	671409	582	-	5	0	2	5	8	13	31	57	b0641 rlpB	670828	671409	equal		

pORF_-_671424	671424	674147	2724	-	4	44	77	125	163	488	738	944	b0642	leuS	671424	674006	inside	
pORF_-_680946	680946	682616	1671	-	4	1	1	1	1	0	0	0	b0650	hscC	680946	682616	equal	
pORF_-_682700	682700	683668	969	-	6	0	1	3	4	8	12	15	b0651	rihA	682700	683635	inside	
pORF_-_683753	683753	684478	726	-	6	2	5	6	7	61	66	68	b0652	gltL	683753	684478	equal	
pORF_-_685152	685152	685892	741	-	4	0	0	1	3	0	3	7	b0654	gltJ	685152	685892	equal	
pORF_-_686062	686062	687045	984	-	5	3	31	50	75	918	1032	1224	b0655	gltI	686062	686970	inside	
pORF_-_687220	687220	688236	1017	-	5	0	0	46	46	0	158	158	b0656	insH	687220	688236	equal	
pORF_-_688566	688566	690104	1539	-	4	2	2	4	7	0	7	18	b0657	Int	688566	690104	equal	
pORF_-_690129	690129	691007	879	-	4	3	10	17	25	55	81	107	b0658	ybeX	690129	691007	equal	
pORF_-_691097	691097	691564	468	-	6	0	0	2	4	0	4	9	b0659	ybeY	691097	691564	equal	
pORF_-_691561	691561	692640	1080	-	5	13	34	45	54	352	398	443	b0660	ybeZ	691561	692601	inside	
pORF_-_692754	692754	694178	1425	-	4	13	23	38	39	45	113	115	b0661	miaB	692754	694178	equal	
pORF_-_695417	695417	695728	312	-	6	0	0	1	1	0	2	2						FP
pORF_-_696736	696736	698481	1746	-	5	11	18	36	55	71	179	314	b0674	asnB	696736	698400	inside	
pORF_-_698797	698797	699549	753	-	5	2	6	16	26	22	61	104	b0675	nagD	698797	699549	equal	
pORF_-_699597	699597	700817	1221	-	4	0	5	11	17	18	32	47	b0676	nagC	699597	700817	equal	
pORF_-_700826	700826	701974	1149	-	6	0	3	10	16	61	88	121	b0677	nagA	700826	701974	equal	
pORF_-_702034	702034	702834	801	-	5	5	22	28	34	353	380	417	b0678	nagB	702034	702834	equal	
pORF_-_709423	709423	709869	447	-	5	4	20	29	34	484	508	520	b0683	fur	709423	709869	equal	
pORF_-_710158	710158	710805	648	-	5	4	10	16	20	128	161	179	b0684	fldA	710158	710688	inside	
pORF_-_710828	710828	711190	363	-	6	0	1	1	1	4	4	4	b0685	ybfE	710828	711121	inside	
pORF_-_711261	711261	712025	765	-	4	2	6	12	20	97	125	173	b0686	ybfF	711261	712025	equal	
pORF_-_713289	713289	713375	87	-	4	0	1	1	1	4	4	4						FP
pORF_-_714396	714396	714599	204	-	4	0	0	1	1	0	3	3						FP
pORF_-_714604	714604	714783	180	-	5	0	1	1	1	2	2	2						FP
pORF_-_717485	717485	719683	2199	-	6	1	1	1	1	0	0	0	b0693	speF	717485	719683	equal	
pORF_-_720953	720953	723679	2727	-	6	0	0	1	3	0	7	13	b0695	kdpD	720953	723637	inside	
pORF_-_731332	731332	731751	420	-	5	0	5	5	5	14	14	14						FP
pORF_-_731672	731672	731863	192	-	6	0	0	1	1	0	5	5						FP
pORF_-_733332	733332	733622	291	-	4	0	2	2	2	8	8	8						FP
pORF_-_734393	734393	734569	177	-	6	0	1	1	1	4	4	4						FP
pORF_-_736138	736138	736341	204	-	5	0	0	1	1	0	4	4						FP
pORF_-_752408	752408	753691	1284	-	6	12	42	71	112	1248	1869	2810	b0720	gltA	752408	753691	equal	
pORF_-_758160	758160	758312	153	-	4	0	0	1	1	0	2	2						FP
pORF_-_762989	762989	763294	306	-	6	0	1	1	1	2	2	2						FP
pORF_-_769204	769204	769335	132	-	5	0	1	1	1	2	2	2						FP
pORF_-_784160	784160	784540	381	-	6	0	4	8	14	37	68	126	b0753	ybgS	784160	784540	equal	
pORF_-_786066	786066	786833	768	-	4	21	84	106	136	5435	5690	5994	b0755	gpmA	786066	786818	inside	
pORF_-_787020	787020	788060	1041	-	4	5	12	23	37	135	216	277	b0756	galM	787020	788060	equal	
pORF_-_788054	788054	789202	1149	-	6	8	14	16	19	27	33	42	b0757	galK	788054	789202	equal	
pORF_-_789206	789206	790252	1047	-	6	3	4	5	7	2	9	17	b0758	galT	789206	790252	equal	
pORF_-_790262	790262	791320	1059	-	6	5	14	23	31	208	260	324	b0759	galE	790262	791278	inside	
pORF_-_791539	791539	793023	1485	-	5	1	3	10	18	7	34	62	b0760	modF	791539	793011	inside	
pORF_-_793079	793079	793867	789	-	6	3	4	6	10	6	10	19	b0761	modE	793079	793867	equal	
pORF_-_796248	796248	796580	333	-	4	0	1	1	1	4	4	4						FP
pORF_-_796836	796836	797756	921	-	4	3	5	8	8	31	44	44	b0766	ybhA	796836	797654	inside	

pORF_-_797174	797174	797335	162	-	6	0	0	0	1	0	0	2										FP
pORF_-_802680	802680	802832	153	-	4	0	1	1	1	2	2	2										FP
pORF_-_805221	805221	806504	1284	-	4	3	9	21	34	109	166	225	b0772	ybhC	805221	806504	equal					
pORF_-_806656	806656	807132	477	-	5	0	1	4	7	2	14	33	b0773	ybhB	806656	807132	equal					
pORF_-_807191	807191	808591	1401	-	6	0	0	4	7	0	11	19	b0774	bioA	807191	808480	inside					
pORF_-_809421	809421	809576	156	-	4	0	1	1	1	2	2	2										FP
pORF_-_814962	814962	815930	969	-	4	0	1	2	3	7	9	12	b0780	ybhK	814962	815870	inside					
pORF_-_821721	821721	822962	1242	-	4	0	0	0	1	0	0	2	b0789	ybhO	821721	822962	equal					
pORF_-_824225	824225	825331	1107	-	6	0	0	0	1	0	0	2	b0792	ybhR	824225	825331	equal					
pORF_-_826468	826468	828219	1752	-	5	3	3	3	3	0	0	0	b0794	ybhF	826468	828204	inside					
pORF_-_828197	828197	829195	999	-	6	0	4	7	13	33	40	65	b0795	ybhG	828197	829195	equal					
pORF_-_829195	829195	829878	684	-	5	0	0	0	1	0	0	3	b0796	ybiH	829195	829866	inside					
pORF_-_836888	836888	837148	261	-	6	0	2	4	7	6	10	23	b0802	ybiJ	836888	837148	equal					
pORF_-_837753	837753	838466	714	-	4	0	6	7	7	83	85	85	b0804	ybiX	837753	838430	inside					
pORF_-_838472	838472	840754	2283	-	6	11	45	47	48	788	793	795	b0805	fiu	838472	840754	equal					
pORF_-_842478	842478	844838	2361	-	4	1	1	1	1	0	0	0	b0808	ybiO	842478	844703	inside					
pORF_-_844964	844964	845686	723	-	6	7	19	26	31	142	169	191	b0809	glnQ	844964	845686	equal					
pORF_-_846481	846481	847227	747	-	5	8	44	55	67	847	908	988	b0811	glnH	846481	847227	equal					
pORF_-_847631	847631	848257	627	-	6	13	49	65	94	884	1001	1857	b0812	dps	847631	848134	inside					
pORF_-_852092	852092	852220	129	-	6	0	1	1	1	8	8	8										FP
pORF_-_854047	854047	854967	921	-	5	8	28	38	49	1044	1097	1170	b0819	ybiS	854047	854967	equal					
pORF_-_857019	857019	858290	1272	-	4	0	1	3	3	9	15	15	b0821	ybiU	857019	858284	inside					
pORF_-_858436	858436	859251	816	-	5	0	3	7	10	22	35	46	b0822	ybiV	858436	859251	equal					
pORF_-_859397	859397	861829	2433	-	6	2	2	2	2	0	0	0	b0823	ybiW	859397	861829	equal					
pORF_-_863603	863603	864352	750	-	6	0	0	1	1	0	2	2	b0826	moeB	863603	864352	equal					
pORF_-_864352	864352	865587	1236	-	5	4	15	26	36	304	354	395	b0827	moeA	864352	865587	equal					
pORF_-_867104	867104	867328	225	-	6	0	1	1	1	4	4	4										FP
pORF_-_875933	875933	877258	1326	-	6	5	9	19	26	65	108	129	b0835	yliG	875933	877258	equal					
pORF_-_879077	879077	879709	633	-	6	3	12	21	31	144	194	238	b0838	yliJ	879077	879703	inside					
pORF_-_881199	881199	881957	759	-	4	0	1	2	4	2	5	10	b0840	deoR	881199	881957	equal					
pORF_-_884539	884539	885357	819	-	5	0	1	3	4	2	16	20	b0844	ybjI	884539	885354	inside					
pORF_-_885354	885354	886562	1209	-	4	0	1	1	1	2	2	2	b0845	ybjJ	885354	886562	equal					
pORF_-_887357	887357	889042	1686	-	6	0	1	2	3	2	4	8	b0847	ybjL	887357	889042	equal					
pORF_-_889299	889299	889544	246	-	4	0	1	1	1	2	2	2										FP
pORF_-_889719	889719	889991	273	-	4	0	1	3	7	4	11	19	b0849	grxA	889719	889976	inside					
pORF_-_899067	899067	899849	783	-	4	7	44	56	71	1968	2069	2234	b0860	artJ	899067	899798	inside					
pORF_-_900757	900757	901473	717	-	5	0	0	1	1	0	2	2	b0862	artQ	900757	901473	equal					
pORF_-_901480	901480	902211	732	-	5	10	34	47	59	480	553	645	b0863	artI	901480	902211	equal					
pORF_-_902229	902229	903056	828	-	4	3	7	11	13	46	62	69	b0864	artP	902229	902957	inside					
pORF_-_903175	903175	903690	516	-	5	0	3	9	16	21	49	117	b0865	ybjP	903175	903690	equal					
pORF_-_904963	904963	906039	1077	-	5	0	0	0	1	0	0	3	b0868	ybjS	904963	905976	inside					
pORF_-_907516	907516	908517	1002	-	5	2	11	20	29	168	196	219	b0870	ltaE	907516	908517	equal					
pORF_-_908554	908554	910272	1719	-	5	2	5	16	31	8	40	97	b0871	poxB	908554	910272	equal					
pORF_-_916130	916130	916240	111	-	6	0	0	1	1	0	11	11										FP
pORF_-_916430	916430	916786	357	-	6	0	1	1	1	3	3	3										FP
pORF_-_917351	917351	918343	993	-	6	0	3	7	7	21	40	40	b0877	ybjX	917351	918343	equal					



pORF_-_919588	919588	919869	282	-	5	0	1	1	1	9	9	9						FP
pORF_-_921589	921589	921843	255	-	5	5	7	9	10	5	11	13	b0880	cspD	921589	921813	inside	
pORF_-_925448	925448	925666	219	-	6	4	13	19	23	646	694	743	b0884	infA	925448	925666	equal	
pORF_-_926697	926697	928418	1722	-	4	0	1	4	7	14	22	30	b0886	cydC	926697	928418	equal	
pORF_-_928419	928419	930185	1767	-	4	0	1	8	11	3	28	40	b0887	cydD	928419	930185	equal	
pORF_-_930308	930308	931369	1062	-	6	14	38	55	67	921	1103	1268	b0888	trxB	930308	931273	inside	
pORF_-_941733	941733	942302	570	-	4	0	1	1	1	3	3	3						FP
pORF_-_944154	944154	944780	627	-	4	0	6	10	13	43	60	74	b0897	ycaC	944154	944780	equal	
pORF_-_949563	949563	950330	768	-	4	0	2	7	12	30	47	63	b0902	pflA	949563	950303	inside	
pORF_-_950495	950495	952777	2283	-	6	47	137	184	233	3353	3790	4497	b0903	pflB	950495	952777	equal	
pORF_-_952832	952832	953863	1032	-	6	0	1	1	1	4	4	4	b0904	focA	952832	953689	inside	
pORF_-_954095	954095	955888	1794	-	6	7	9	15	18	13	30	38	b0905	ycaO	954095	955855	inside	
pORF_-_959581	959581	959736	156	-	5	0	1	1	1	2	2	2						FP
pORF_-_959939	959939	960181	243	-	6	0	1	1	2	6	6	21						FP
pORF_-_960702	960702	961049	348	-	4	0	2	2	2	5	5	5						FP
pORF_-_961254	961254	962393	1140	-	4	0	1	1	1	3	3	3						FP
pORF_-_964682	964682	965098	417	-	6	0	0	1	1	0	5	5						FP
pORF_-_970294	970294	970617	324	-	5	0	1	1	1	2	2	2						FP
pORF_-_981086	981086	981265	180	-	6	0	1	1	1	5	5	5						FP
pORF_-_983742	983742	984932	1191	-	4	22	66	93	122	2282	2599	2846	b0928	aspC	983742	984932	equal	
pORF_-_985117	985117	986205	1089	-	5	17	55	71	71	1405	1483	1483	b0929	ompF	985117	986205	equal	
pORF_-_986808	986808	988253	1446	-	4	21	45	67	86	756	934	1156	b0930	asnS	986808	988208	inside	
pORF_-_988377	988377	989627	1251	-	4	5	9	22	27	85	127	146	b0931	pncB	988377	989579	inside	
pORF_-_992500	992500	993267	768	-	5	1	1	1	1	0	0	0	b0933	ssuB	992500	993267	equal	
pORF_-_994066	994066	995211	1146	-	5	0	0	1	2	0	2	9	b0935	ssuD	994066	995211	equal	
pORF_-_1005714	1005714	1006823	1110	-	4	0	7	14	20	127	147	169	b0947	ycbX	1005714	1006823	equal	
pORF_-_1006396	1006396	1006548	153	-	5	0	1	1	1	2	2	2						FP
pORF_-_1015042	1015042	1015080	39	-	5	0	2	2	2	5	5	5						FP
pORF_-_1015175	1015175	1015891	717	-	6	10	26	34	40	354	382	409	b0954	fabA	1015175	1015693	inside	
pORF_-_1015762	1015762	1017522	1761	-	5	0	1	4	8	13	19	27	b0955	ycbZ	1015762	1017522	equal	
pORF_-_1018236	1018236	1019348	1113	-	4	25	94	131	164	6759	7531	8377	b0957	ompA	1018236	1019276	inside	
pORF_-_1020953	1020953	1023115	2163	-	6	0	0	2	2	0	4	4	b0960	yccS	1020953	1023106	inside	
pORF_-_1023125	1023125	1023571	447	-	6	0	0	1	1	0	2	2	b0961	yccF	1023125	1023571	equal	
pORF_-_1025780	1025780	1026247	468	-	6	2	5	8	10	30	45	56	b0963	mgsA	1025780	1026238	inside	
pORF_-_1026334	1026334	1026996	663	-	5	0	1	1	1	2	2	2	b0964	yccT	1026334	1026996	equal	
pORF_-_1027291	1027291	1027578	288	-	5	0	1	1	1	4	4	4						FP
pORF_-_1027627	1027627	1027995	369	-	5	0	1	2	2	2	4	4	b0966	hspQ	1027627	1027944	inside	
pORF_-_1028002	1028002	1029192	1191	-	5	6	9	17	23	27	67	87	b0967	yccW	1028002	1029192	equal	
pORF_-_1029562	1029562	1029948	387	-	5	0	1	2	2	2	4	4	b0969	yccK	1029562	1029891	inside	
pORF_-_1031461	1031461	1032324	864	-	5	0	0	0	1	0	0	2						FP
pORF_-_1041253	1041253	1043433	2181	-	5	0	1	1	1	2	2	2	b0981	etk	1041253	1043433	equal	
pORF_-_1041855	1041855	1042034	180	-	4	0	1	1	1	9	9	9						FP
pORF_-_1045072	1045072	1047168	2097	-	5	0	1	1	1	5	5	5	b0984	gfcD	1045072	1047168	equal	
pORF_-_1047168	1047168	1047914	747	-	4	0	1	1	1	3	3	3	b0985	gfcC	1047168	1047914	equal	
pORF_-_1049199	1049199	1049468	270	-	4	0	3	3	3	15	15	15						FP
pORF_-_1056485	1056485	1057177	693	-	6	1	1	2	3	0	2	4	b0995	torR	1056485	1057177	equal	

pORF_-_1061773	1061773	1062093	321	-	5	0	2	2	2	16	16	16	b0999	cbpM	1061773	1062078	inside	
pORF_-_1062078	1062078	1062998	921	-	4	0	1	5	14	7	34	151	b1000	cbpA	1062078	1062998	equal	
pORF_-_1064098	1064098	1064301	204	-	5	0	1	1	1	2	2	2					equal	FP
pORF_-_1066087	1066087	1066314	228	-	5	2	9	12	16	97	131	201	b1003	yccJ	1066087	1066314	equal	
pORF_-_1066335	1066335	1066931	597	-	4	8	23	32	44	217	310	484	b1004	wrbA	1066335	1066931	equal	
pORF_-_1071196	1071196	1071309	114	-	5	0	1	1	1	2	2	2					equal	FP
pORF_-_1074143	1074143	1078171	4029	-	6	16	16	20	22	0	12	16	b1014	putA	1074143	1078105	inside	
pORF_-_1076866	1076866	1077012	147	-	5	0	1	1	1	2	2	2					equal	FP
pORF_-_1079245	1079245	1079484	240	-	5	0	0	1	2	0	6	12					equal	FP
pORF_-_1087062	1087062	1089080	2019	-	4	0	0	0	1	0	0	2	b1023	pgaB	1087062	1089080	equal	
pORF_-_1089089	1089089	1091512	2424	-	6	0	1	1	1	10	10	10	b1024	pgaA	1089089	1091512	equal	
pORF_-_1093498	1093498	1094364	867	-	5	0	0	0	5	0	0	10	b1026	insF	1093498	1094364	equal	
pORF_-_1094361	1094361	1094669	309	-	4	0	0	5	10	0	10	35	b1027	insE	1094361	1094669	equal	
pORF_-_1095974	1095974	1096147	174	-	6	0	2	2	2	5	5	5					equal	FP
pORF_-_1100074	1100074	1100907	834	-	5	0	1	1	1	3	3	3	b1037	csgG	1100074	1100907	equal	
pORF_-_1100934	1100934	1101350	417	-	4	0	2	2	2	4	4	4	b1038	csgF	1100934	1101350	equal	
pORF_-_1101769	1101769	1102419	651	-	5	0	2	2	2	7	7	7	b1040	csgD	1101769	1102419	equal	
pORF_-_1109957	1109957	1110256	300	-	6	0	2	2	2	4	4	4					equal	FP
pORF_-_1113030	1113030	1113407	378	-	4	2	4	7	13	6	30	86	b1051	msyB	1113030	1113404	inside	
pORF_-_1113487	1113487	1114713	1227	-	5	0	1	1	1	2	2	2	b1053	mdtG	1113487	1114713	equal	
pORF_-_1114885	1114885	1115868	984	-	5	0	0	1	2	0	3	6	b1054	lpxL	1114885	1115805	inside	
pORF_-_1117124	1117124	1117699	576	-	6	1	4	13	19	24	54	73	b1056	yceI	1117124	1117699	equal	
pORF_-_1118691	1118691	1119809	1119	-	4	6	8	18	26	28	61	88	b1059	solA	1118691	1119809	equal	
pORF_-_1119924	1119924	1120181	258	-	4	0	0	2	2	0	15	15	b1060	bssS	1119924	1120178	inside	
pORF_-_1120465	1120465	1120842	378	-	5	0	1	1	1	2	2	2	b1061	dinI	1120465	1120710	inside	
pORF_-_1120784	1120784	1121830	1047	-	6	7	34	48	67	1047	1157	1320	b1062	pyrC	1120784	1121830	equal	
pORF_-_1121936	1121936	1122697	762	-	6	0	0	3	6	0	12	21	b1063	yceB	1121936	1122496	inside	
pORF_-_1122630	1122630	1123277	648	-	4	6	26	36	46	335	372	409	b1064	grxB	1122630	1123277	equal	
pORF_-_1123341	1123341	1124579	1239	-	4	0	0	1	2	0	2	5	b1065	mdtH	1123341	1124549	inside	
pORF_-_1128637	1128637	1129053	417	-	5	0	1	3	3	2	7	7	b1070	flgN	1128637	1129053	equal	
pORF_-_1129058	1129058	1129351	294	-	6	0	1	2	2	24	27	27	b1071	flgM	1129058	1129351	equal	
pORF_-_1140405	1140405	1143590	3186	-	4	14	57	91	133	1221	1411	1627	b1084	rne	1140405	1143590	equal	
pORF_-_1145234	1145234	1145857	624	-	6	0	2	7	12	12	31	50	b1087	yceF	1145234	1145818	inside	
pORF_-_1148135	1148135	1148266	132	-	6	0	1	1	1	2	2	2					equal	FP
pORF_-_1152658	1152658	1152858	201	-	5	0	1	1	1	2	2	2					equal	FP
pORF_-_1157398	1157398	1158522	1125	-	5	0	1	1	1	2	2	2					equal	FP
pORF_-_1158585	1158585	1160774	2190	-	4	0	4	4	4	63	63	63	b1102	fhuE	1158585	1160774	equal	
pORF_-_1161878	1161878	1162003	126	-	6	0	1	1	1	2	2	2					equal	FP
pORF_-_1165260	1165260	1165898	639	-	4	0	0	0	1	0	0	7					equal	FP
pORF_-_1166719	1166719	1166805	87	-	5	0	1	1	1	2	2	2					equal	FP
pORF_-_1167423	1167423	1168133	711	-	4	0	0	1	2	0	2	5	b1111	yceQ	1167423	1168055	inside	
pORF_-_1168635	1168635	1169600	966	-	4	2	2	2	2	0	0	0	b1113	yceS	1168635	1169597	inside	
pORF_-_1169741	1169741	1173250	3510	-	6	8	9	23	36	4	52	102	b1114	mfd	1169741	1173187	inside	
pORF_-_1181006	1181006	1182052	1047	-	6	17	24	37	54	59	100	219	b1123	potD	1181006	1182052	equal	
pORF_-_1183681	1183681	1184817	1137	-	5	9	15	22	29	85	105	121	b1126	potA	1183681	1184817	equal	
pORF_-_1186342	1186342	1187472	1131	-	5	0	6	15	23	90	120	151	b1128	yceD	1186342	1187463	inside	

pORF_-_1187539	1187539	1188999	1461	-	5	0	0	2	3	0	4	6	b1129	phoQ	1187539	1188999	equal
pORF_-_1188999	1188999	1189670	672	-	4	7	14	26	37	343	394	455	b1130	phoP	1188999	1189670	equal
pORF_-_1189839	1189839	1191209	1371	-	4	19	48	71	91	747	1112	1335	b1131	purB	1189839	1191209	equal
pORF_-_1191213	1191213	1191860	648	-	4	0	1	2	4	7	9	13	b1132	hflD	1191213	1191854	inside
pORF_-_1191890	1191890	1193041	1152	-	6	4	7	13	17	27	51	69	b1133	mnmA	1191890	1192996	inside
pORF_-_1193050	1193050	1193511	462	-	5	0	0	1	4	0	2	10	b1134	nudJ	1193050	1193511	equal
pORF_-_1196756	1196756	1197469	714	-	6	1	1	1	1	0	0	0	b1138	ymfE	1196756	1197460	inside
pORF_-_1198902	1198902	1200029	1128	-	4	0	1	1	1	2	2	2	b1140	intE	1198902	1200029	equal
pORF_-_1201482	1201482	1202156	675	-	4	0	1	2	3	3	6	9	b1145	ymfK	1201482	1202156	equal
pORF_-_1212551	1212551	1213282	732	-	6	0	0	1	1	0	2	2	b1162	ycgE	1212551	1213282	equal
pORF_-_1221528	1221528	1221863	336	-	4	0	3	3	3	9	9	9	b1171	ymgD	1221528	1221857	inside
pORF_-_1221867	1221867	1222211	345	-	4	0	0	0	1	0	0	3	b1172	ymgG	1221867	1222151	inside
pORF_-_1223502	1223502	1223768	267	-	4	3	10	15	19	149	179	195	b1174	minE	1223502	1223768	equal
pORF_-_1223772	1223772	1224584	813	-	4	8	37	51	64	1013	1110	1196	b1175	minD	1223772	1224584	equal
pORF_-_1224608	1224608	1225318	711	-	6	2	3	8	12	7	29	51	b1176	minC	1224608	1225303	inside
pORF_-_1226294	1226294	1226695	402	-	6	4	11	18	29	56	176	428	b1178	ycgK	1226294	1226695	equal
pORF_-_1232114	1232114	1232314	201	-	6	0	2	2	2	5	5	5					
pORF_-_1232399	1232399	1233994	1596	-	6	0	0	1	2	0	2	4	b1186	nhaB	1232399	1233940	inside
pORF_-_1234932	1234932	1236464	1533	-	4	0	0	0	9	0	0	40	b1188	ycgB	1234932	1236464	equal
pORF_-_1236853	1236853	1237086	234	-	5	0	0	1	1	0	2	2					FP
pORF_-_1239558	1239558	1241294	1737	-	4	0	0	1	1	0	2	2	b1191	cvrA	1239558	1241294	equal
pORF_-_1241389	1241389	1242303	915	-	5	4	4	9	12	0	11	23	b1192	ldcA	1241389	1242303	equal
pORF_-_1243016	1243016	1243750	735	-	6	0	0	5	7	0	19	23	b1194	ycgR	1243016	1243750	equal
pORF_-_1244902	1244902	1246602	1701	-	5	0	11	13	30	60	68	133	b1197	treA	1244902	1246599	inside
pORF_-_1246919	1246919	1248343	1425	-	6	3	7	16	27	36	73	106	b1198	dhaM	1246919	1248340	inside
pORF_-_1248348	1248348	1249058	711	-	4	1	14	18	22	119	135	151	b1199	dhaL	1248348	1248980	inside
pORF_-_1248991	1248991	1250091	1101	-	5	2	9	15	19	158	180	201	b1200	dhaK	1248991	1250061	inside
pORF_-_1252308	1252308	1255175	2868	-	4	1	1	1	1	0	0	0	b1202	ycgV	1252308	1255175	equal
pORF_-_1255944	1255944	1257035	1092	-	4	13	43	60	77	1082	1184	1268	b1203	ychF	1255944	1257035	equal
pORF_-_1257152	1257152	1257736	585	-	6	8	9	13	17	5	20	40	b1204	pth	1257152	1257736	equal
pORF_-_1258347	1258347	1260026	1680	-	4	0	0	2	2	0	5	5	b1206	ychM	1258347	1260026	equal
pORF_-_1260151	1260151	1261164	1014	-	5	15	60	76	95	2780	2904	3016	b1207	prs	1260151	1261098	inside
pORF_-_1261249	1261249	1262100	852	-	5	0	0	6	12	0	16	37	b1208	ispE	1261249	1262100	equal
pORF_-_1262100	1262100	1262723	624	-	4	2	4	9	13	8	23	36	b1209	lolB	1262100	1262723	equal
pORF_-_1271390	1271390	1271635	246	-	6	0	1	1	1	7	7	7					FP
pORF_-_1272469	1272469	1272822	354	-	5	4	8	12	15	49	78	115	b1219	ychN	1272469	1272822	equal
pORF_-_1273452	1273452	1273646	195	-	4	0	0	1	1	0	4	4					FP
pORF_-_1274402	1274402	1275166	765	-	6	2	10	16	22	178	210	244	b1221	narL	1274402	1275052	inside
pORF_-_1275045	1275045	1276841	1797	-	4	0	0	3	6	0	10	18	b1222	narX	1275045	1276841	equal
pORF_-_1278222	1278222	1278380	159	-	4	0	1	1	1	2	2	2					FP
pORF_-_1281070	1281070	1282383	1314	-	5	0	1	1	1	2	2	2					FP
pORF_-_1287005	1287005	1287847	843	-	6	8	16	24	30	174	241	308	b1232	purU	1287005	1287847	equal
pORF_-_1289019	1289019	1289219	201	-	4	0	1	1	1	4	4	4					FP
pORF_-_1291732	1291732	1292145	414	-	5	10	77	89	103	4578	4748	4960	b1237	hns	1291732	1292145	equal
pORF_-_1294669	1294669	1297344	2676	-	5	45	159	221	287	4011	4594	5457	b1241	adhE	1294669	1297344	equal
pORF_-_1304845	1304845	1305252	408	-	5	0	1	1	1	14	14	14	b1248	yciU	1304845	1305174	inside

pORF_-_1305209	1305209	1306669	1461	-	6	0	0	3	6	0	10	22	b1249	cls	1305209	1306669	equal	
pORF_-_1307040	1307040	1308311	1272	-	4	0	2	3	4	16	19	21	b1250	kch	1307040	1308293	inside	
pORF_-_1308593	1308593	1308985	393	-	6	0	2	3	4	75	81	91	b1251	yciI	1308593	1308889	inside	
pORF_-_1309872	1309872	1310270	399	-	4	0	0	4	6	0	16	28	b1253	yciA	1309872	1310270	equal	
pORF_-_1312742	1312742	1313248	507	-	6	0	1	4	8	2	9	20	b1257	yciE	1312742	1313248	equal	
pORF_-_1313294	1313294	1313842	549	-	6	0	3	6	9	16	26	51	b1258	yciF	1313294	1313794	inside	
pORF_-_1313880	1313880	1314116	237	-	4	0	0	0	1	0	0	3	b1259	yciG	1313880	1314059	inside	
pORF_-_1314440	1314440	1315246	807	-	6	3	40	57	73	691	903	1187	b1260	trpA	1314440	1315246	equal	
pORF_-_1315246	1315246	1316439	1194	-	5	0	20	39	58	1007	1170	1350	b1261	trpB	1315246	1316439	equal	
pORF_-_1316451	1316451	1317812	1362	-	4	0	8	26	40	63	175	250	b1262	trpC	1316451	1317809	inside	
pORF_-_1317813	1317813	1319408	1596	-	4	0	6	24	39	203	338	461	b1263	trpD	1317813	1319408	equal	
pORF_-_1319408	1319408	1320970	1563	-	6	0	7	26	39	46	126	182	b1264	trpE	1319408	1320970	equal	
pORF_-_1321515	1321515	1321712	198	-	4	0	1	1	1	2	2	2						FP
pORF_-_1325791	1325791	1326381	591	-	5	0	0	0	2	0	0	4	b1270	btuR	1325791	1326381	equal	
pORF_-_1326378	1326378	1327136	759	-	4	1	1	5	7	0	14	18	b1271	yciK	1326378	1327136	equal	
pORF_-_1328441	1328441	1328692	252	-	6	2	2	6	9	0	10	20	b1273	yciN	1328441	1328692	equal	
pORF_-_1336594	1336594	1337247	654	-	5	0	1	5	7	4	15	21	b1277	ribA	1336594	1337184	inside	
pORF_-_1341134	1341134	1341352	219	-	6	0	0	1	3	0	121	428	b1283	osmB	1341134	1341352	equal	
pORF_-_1341621	1341621	1342370	750	-	4	3	7	13	18	15	33	48	b1284	yciT	1341621	1342370	equal	
pORF_-_1342460	1342460	1342642	183	-	6	0	2	2	2	14	14	14	b4596	yciZ	1342460	1342633	inside	
pORF_-_1345002	1345002	1346936	1935	-	4	20	52	87	119	688	898	1231	b1286	rnb	1345002	1346936	equal	
pORF_-_1347004	1347004	1348209	1206	-	5	0	1	1	1	12	12	12	b1287	yciW	1347004	1348131	inside	
pORF_-_1348275	1348275	1349063	789	-	4	12	53	70	91	1990	2251	2479	b1288	fabI	1348275	1349063	equal	
pORF_-_1349852	1349852	1350658	807	-	6	0	0	1	3	0	3	8	b1290	sapF	1349852	1350658	equal	
pORF_-_1350660	1350660	1351652	993	-	4	0	0	0	2	0	0	4	b1291	sapD	1350660	1351652	equal	
pORF_-_1352529	1352529	1353494	966	-	4	0	0	0	1	0	0	2	b1293	sapB	1352529	1353494	equal	
pORF_-_1353007	1353007	1353096	90	-	5	0	0	0	1	0	0	2						FP
pORF_-_1353491	1353491	1355134	1644	-	6	3	4	6	10	3	11	24	b1294	sapA	1353491	1355134	equal	
pORF_-_1355447	1355447	1355692	246	-	6	1	1	3	5	0	5	10	b1295	ymjA	1355447	1355692	equal	
pORF_-_1355826	1355826	1357265	1440	-	4	0	1	2	2	2	5	5	b1296	puuP	1355826	1357211	inside	
pORF_-_1357514	1357514	1359010	1497	-	6	0	0	1	5	0	6	18	b1297	puuA	1357514	1358932	inside	
pORF_-_1362430	1362430	1362801	372	-	5	0	1	1	1	2	2	2						FP
pORF_-_1363054	1363054	1363371	318	-	5	0	0	1	1	0	9	9						FP
pORF_-_1364357	1364357	1364497	141	-	6	0	0	1	1	0	6	6						FP
pORF_-_1364959	1364959	1365951	993	-	5	0	1	1	2	2	2	5	b1303	pspF	1364959	1365936	inside	
pORF_-_1386329	1386329	1386835	507	-	6	9	33	46	61	2512	3345	4152	b1324	tpx	1386329	1386835	equal	
pORF_-_1387894	1387894	1388682	789	-	5	0	1	1	1	6	6	6	b1326	mpaA	1387894	1388682	equal	
pORF_-_1389628	1389628	1389795	168	-	5	0	1	1	1	2	2	2						FP
pORF_-_1392915	1392915	1393946	1032	-	4	0	0	1	2	0	2	4	b1330	ynaI	1392915	1393946	equal	
pORF_-_1395696	1395696	1396673	978	-	4	3	8	19	31	91	183	403	b1333	uspE	1395696	1396646	inside	
pORF_-_1396798	1396798	1397607	810	-	5	2	7	14	16	67	88	96	b1334	fnr	1396798	1397550	inside	
pORF_-_1404587	1404587	1405879	1293	-	6	0	1	1	1	4	4	4	b1341	ydaM	1404587	1405819	inside	
pORF_-_1407939	1407939	1408181	243	-	4	0	1	1	1	2	2	2						FP
pORF_-_1409037	1409037	1409972	936	-	4	5	7	13	14	15	29	31	b1344	ttcA	1409037	1409972	equal	
pORF_-_1412810	1412810	1415410	2601	-	6	0	0	0	1	0	0	3	b1350	recE	1412810	1415410	equal	
pORF_-_1417789	1417789	1418265	477	-	5	0	0	1	1	0	2	2	b1356	racR	1417789	1418265	equal	

pORF_-_1425770	1425770	1426750	981	-	6	0	0	24	24	0	48	48	b1370	insH	1425770	1426750	equal	
pORF_-_1431108	1431108	1431698	591	-	4	0	3	3	3	6	6	6	b1374	pinR	1431108	1431698	equal	
pORF_-_1433209	1433209	1433715	507	-	5	0	8	14	26	242	275	380	b1376	uspF	1433209	1433643	inside	
pORF_-_1433784	1433784	1434917	1134	-	4	11	15	23	23	20	44	44	b1377	ompN	1433784	1434917	equal	
pORF_-_1435284	1435284	1438808	3525	-	4	3	3	13	28	0	27	80	b1378	ydbK	1435284	1438808	equal	
pORF_-_1439345	1439345	1439779	435	-	6	0	0	3	6	0	6	13	b1379	hslJ	1439345	1439767	inside	
pORF_-_1439878	1439878	1440867	990	-	5	8	11	21	30	50	106	166	b1380	ldhA	1439878	1440867	equal	
pORF_-_1449621	1449621	1451666	2046	-	4	1	1	1	1	0	0	0	b1387	maoC	1449621	1451666	equal	
pORF_-_1461939	1461939	1462106	168	-	4	0	0	1	2	0	20	40						FP
pORF_-_1471491	1471491	1471538	48	-	4	0	1	1	1	3	3	3						FP
pORF_-_1477265	1477265	1477555	291	-	6	0	1	1	1	3	3	3						FP
pORF_-_1480279	1480279	1480884	606	-	5	3	6	14	18	24	95	113	b1412	azoR	1480279	1480884	equal	
pORF_-_1486636	1486636	1487091	456	-	5	0	1	1	1	2	2	2						FP
pORF_-_1487985	1487985	1488389	405	-	4	1	1	1	1	0	0	0	b4493	gapC	1487737	1488737	contain	
pORF_-_1488621	1488621	1488737	117	-	4	2	2	2	2	0	0	0						
pORF_-_1492172	1492172	1493236	1065	-	6	0	3	6	7	11	19	21	b1422	ydcI	1492172	1493095	inside	
pORF_-_1499292	1499292	1499582	291	-	4	0	1	1	1	5	5	5						FP
pORF_-_1504835	1504835	1505575	741	-	6	0	1	1	1	17	17	17						FP
pORF_-_1509762	1509762	1510562	801	-	4	0	1	1	1	2	2	2						FP
pORF_-_1511506	1511506	1511667	162	-	5	0	1	1	1	5	5	5						FP
pORF_-_1514320	1514320	1514517	198	-	5	0	0	1	1	0	7	7						FP
pORF_-_1516031	1516031	1516219	189	-	6	1	1	1	1	0	0	0						FP
pORF_-_1518987	1518987	1521089	2103	-	4	0	1	2	3	6	8	10	b1451	yncD	1518987	1521089	equal	
pORF_-_1522505	1522505	1524055	1551	-	6	0	0	1	2	0	3	5	b1453	ansP	1522505	1524004	inside	
pORF_-_1531306	1531306	1531923	618	-	5	0	1	1	3	3	3	7	b1462	yddH	1531306	1531875	inside	
pORF_-_1532989	1532989	1533882	894	-	5	0	2	3	4	19	22	27	b1464	yddE	1532989	1533882	equal	
pORF_-_1534638	1534638	1535333	696	-	4	0	1	1	1	4	4	4	b1466	narW	1534638	1535333	equal	
pORF_-_1536874	1536874	1540671	3798	-	5	1	1	1	1	0	0	0	b1468	narZ	1536874	1540614	inside	
pORF_-_1539003	1539003	1539224	222	-	4	0	1	1	1	3	3	3						FP
pORF_-_1542782	1542782	1543738	957	-	6	0	1	1	1	3	3	3	b1471	yddK	1542782	1543771	contain	
pORF_-_1543762	1543762	1544052	291	-	5	3	7	15	15	20	44	44	b1472	yddL	1543774	1544052	inside	
pORF_-_1550422	1550422	1550784	363	-	5	0	1	1	1	3	3	3	b1477	yddM	1550422	1550706	inside	
pORF_-_1550852	1550852	1551892	1041	-	6	0	9	9	9	67	67	67	b1478	adhP	1550852	1551862	inside	
pORF_-_1551996	1551996	1553720	1725	-	4	11	21	40	58	237	350	441	b1479	maeA	1551996	1553693	inside	
pORF_-_1552991	1552991	1553230	240	-	6	0	1	1	1	3	3	3						FP
pORF_-_1553850	1553850	1553987	138	-	4	1	1	1	1	0	0	0	b1480	sra	1553850	1553987	equal	
pORF_-_1556055	1556055	1557041	987	-	4	2	2	2	2	0	0	0	b1484	ddpD	1556055	1557041	equal	
pORF_-_1558955	1558955	1560643	1689	-	6	3	4	4	9	2	2	18	b1487	ddpA	1558955	1560505	inside	
pORF_-_1563782	1563782	1565164	1383	-	6	0	0	0	1	0	0	2	b1490	yddV	1563782	1565164	equal	
pORF_-_1566978	1566978	1568513	1536	-	4	0	0	2	6	0	7	35	b1492	gadC	1566978	1568513	equal	
pORF_-_1568669	1568669	1570138	1470	-	6	16	40	74	124	222	404	2066	b1493	gadB	1568669	1570069	inside	
pORF_-_1570431	1570431	1573226	2796	-	4	1	2	2	4	2	2	7	b1494	pqqL	1570431	1573226	equal	
pORF_-_1573271	1573271	1575643	2373	-	6	0	0	1	2	0	2	4	b1495	yddB	1573271	1575643	equal	
pORF_-_1578866	1578866	1580581	1716	-	6	0	0	0	6	0	0	13	b1498	ydeN	1578866	1580548	inside	
pORF_-_1582231	1582231	1584510	2280	-	5	1	2	2	2	2	2	2	b1501	ydeP	1582231	1584510	equal	
pORF_-_1584538	1584538	1584564	27	-	5	1	1	1	1	0	0	0						FP

pORF_-_1588878	1588878	1590257	1380	-	4	0	0	0	1	0	0	2	b1507	hipA	1588878	1590200	inside	
pORF_-_1592133	1592133	1596110	3978	-	4	1	1	2	2	0	2	2	b1510	ydeK	1592133	1596110	equal	
pORF_-_1596641	1596641	1598233	1593	-	6	0	0	0	4	0	0	10	b1511	lsrK	1596641	1598233	equal	
pORF_-_1598312	1598312	1599265	954	-	6	0	0	0	1	0	0	2	b1512	lsrR	1598312	1599265	equal	
pORF_-_1607253	1607253	1608704	1452	-	4	0	1	1	1	3	3	3	b1521	uxaB	1607253	1608704	equal	
pORF_-_1610349	1610349	1611275	927	-	4	0	0	3	3	0	8	8	b1524	yneH	1610349	1611275	equal	
pORF_-_1611339	1611339	1612751	1413	-	4	0	1	4	9	2	13	24	b1525	sad	1611339	1612727	inside	
pORF_-_1622129	1622129	1622521	393	-	6	0	0	0	1	0	0	2	b1536	ydeI	1622129	1622521	equal	
pORF_-_1623359	1623359	1625470	2112	-	6	10	25	45	60	135	269	369	b1538	dcp	1623359	1625404	inside	
pORF_-_1635633	1635633	1635809	177	-	4	5	41	47	53	609	642	676	b1550	gnsB	1635633	1635806	inside	
pORF_-_1636479	1636479	1636691	213	-	4	10	10	10	10	0	0	0	b1552	cspI	1636479	1636691	equal	
pORF_-_1637054	1637054	1637551	498	-	6	0	0	2	2	0	4	4	b1553	ydfP	1637054	1637551	equal	
pORF_-_1639363	1639363	1639578	216	-	5	12	16	16	16	8	8	8	b1557	cspB	1639363	1639578	equal	
pORF_-_1643657	1643657	1643896	240	-	6	0	2	4	8	14	18	26	b1564	relB	1643657	1643896	equal	
pORF_-_1648649	1648649	1648786	138	-	6	1	1	1	1	0	0	0						FP
pORF_-_1650920	1650920	1651963	1044	-	6	0	0	1	1	0	3	3	b1580	rspB	1650920	1651939	inside	
pORF_-_1664548	1664548	1665255	708	-	5	2	3	6	9	2	12	22	b1593	ynfK	1664548	1665243	inside	
pORF_-_1669412	1669412	1669696	285	-	6	0	1	1	1	5	5	5						FP
pORF_-_1672996	1672996	1674384	1389	-	5	2	19	29	42	416	567	723	b1602	pntB	1672996	1674384	equal	
pORF_-_1674395	1674395	1675981	1587	-	6	3	28	51	77	659	1129	1825	b1603	pntA	1674395	1675927	inside	
pORF_-_1683209	1683209	1684612	1404	-	6	0	14	18	25	175	196	251	b1611	fumC	1683209	1684612	equal	
pORF_-_1684755	1684755	1686401	1647	-	4	8	29	67	86	857	1079	1148	b1612	fumA	1684755	1686401	equal	
pORF_-_1687915	1687915	1688169	255	-	5	0	1	1	1	2	2	2						FP
pORF_-_1694486	1694486	1695076	591	-	6	0	2	2	3	47	47	49	b1618	uidR	1694486	1695076	equal	
pORF_-_1695297	1695297	1696064	768	-	4	4	10	18	27	40	70	132	b1619	hdhA	1695297	1696064	equal	
pORF_-_1697324	1697324	1697686	363	-	6	0	1	1	2	8	8	20						FP
pORF_-_1701292	1701292	1702371	1080	-	5	0	1	3	5	3	8	12	b1624	ydgJ	1701292	1702332	inside	
pORF_-_1704743	1704743	1704928	186	-	6	0	0	1	2	0	20	40						FP
pORF_-_1705963	1705963	1707270	1308	-	5	0	1	1	1	3	3	3						FP
pORF_-_1713050	1713050	1713913	864	-	6	5	6	12	16	40	98	120	b1636	pdxY	1713050	1713913	equal	
pORF_-_1713972	1713972	1715258	1287	-	4	17	33	58	77	464	613	790	b1637	tyrS	1713972	1715246	inside	
pORF_-_1715375	1715375	1716031	657	-	6	4	11	17	22	64	85	100	b1638	pdxH	1715375	1716031	equal	
pORF_-_1716517	1716517	1717626	1110	-	5	0	1	6	9	3	20	33	b1640	anmK	1716517	1717626	equal	
pORF_-_1718414	1718414	1718854	441	-	6	0	11	16	22	293	345	394	b1642	slyA	1718414	1718848	inside	
pORF_-_1722158	1722158	1722730	573	-	6	0	2	4	10	8	13	39	b1646	sodC	1722158	1722679	inside	
pORF_-_1722760	1722760	1723656	897	-	5	2	5	11	16	36	60	88	b1647	ydhF	1722760	1723656	equal	
pORF_-_1731778	1731778	1732125	348	-	5	4	11	15	19	416	475	494	b1654	grxD	1731778	1732125	equal	
pORF_-_1734145	1734145	1735314	1170	-	5	0	1	1	1	2	2	2	b1657	ydhP	1734145	1735314	equal	
pORF_-_1740625	1740625	1741266	642	-	5	4	13	19	25	203	235	269	b1662	ribC	1740625	1741266	equal	
pORF_-_1742895	1742895	1744151	1257	-	4	4	5	9	10	3	14	17	b1664	ydhQ	1742895	1744151	equal	
pORF_-_1749752	1749752	1751938	2187	-	6	0	0	0	1	0	0	2	b1673	ydhV	1749752	1751854	inside	
pORF_-_1752956	1752956	1753165	210	-	6	0	3	4	5	31	33	36	b1675	ydhZ	1752956	1753165	equal	
pORF_-_1755745	1755745	1756749	1005	-	5	1	9	14	28	62	79	182	b1678	ynhG	1755745	1756749	equal	
pORF_-_1756898	1756898	1757314	417	-	6	0	1	1	1	2	2	2	b1679	sufE	1756898	1757314	equal	
pORF_-_1757327	1757327	1758547	1221	-	6	0	0	5	10	0	16	36	b1680	sufS	1757327	1758547	equal	
pORF_-_1758544	1758544	1759815	1272	-	5	0	6	11	18	18	32	59	b1681	sufD	1758544	1759815	equal	

pORF_-_1759790	1759790	1760536	747	-	6	3	12	16	23	84	98	122	b1682	sufC	1759790	1760536	equal	
pORF_-_1760546	1760546	1762072	1527	-	6	0	2	5	8	5	11	24	b1683	sufB	1760546	1762033	inside	
pORF_-_1762042	1762042	1762410	369	-	5	3	5	6	8	27	30	39	b1684	sufA	1762042	1762410	equal	
pORF_-_1762958	1762958	1763227	270	-	6	0	2	2	2	88	88	88	b1685	ydiH	1762958	1763227	equal	
pORF_-_1763246	1763246	1763656	411	-	6	1	3	7	10	20	43	57	b1686	ydiI	1763246	1763656	equal	
pORF_-_1763653	1763653	1766709	3057	-	5	0	10	40	66	56	213	359	b1687	ydiJ	1763653	1766709	equal	
pORF_-_1772121	1772121	1772357	237	-	4	0	1	1	1	8	8	8						FP
pORF_-_1773955	1773955	1774122	168	-	5	0	1	1	1	2	2	2						FP
pORF_-_1778812	1778812	1778946	135	-	5	0	1	1	1	3	3	3						FP
pORF_-_1782758	1782758	1785136	2379	-	6	0	72	100	131	2454	2573	2719	b1702	pps	1782758	1785136	equal	
pORF_-_1787832	1787832	1789268	1437	-	4	0	0	1	4	0	5	12	b1706	ydiU	1787832	1789268	equal	
pORF_-_1789360	1789360	1789581	222	-	5	0	1	1	1	4	4	4						FP
pORF_-_1790833	1790833	1791582	750	-	5	1	1	1	1	0	0	0	b1709	btuD	1790833	1791582	equal	
pORF_-_1791582	1791582	1792133	552	-	4	0	15	22	27	276	296	317	b1710	btuE	1791582	1792133	equal	
pORF_-_1792164	1792164	1792571	408	-	4	0	1	1	1	4	4	4						FP
pORF_-_1793277	1793277	1793576	300	-	4	7	22	28	40	339	369	447	b1712	ihfA	1793277	1793576	equal	
pORF_-_1793444	1793444	1793629	186	-	6	0	2	2	2	10	10	10						FP
pORF_-_1793581	1793581	1795968	2388	-	5	29	82	115	145	1973	2168	2363	b1713	pheT	1793581	1795968	equal	
pORF_-_1794828	1794828	1794995	168	-	4	0	1	1	1	17	17	17						FP
pORF_-_1795983	1795983	1796978	996	-	4	15	32	50	65	528	626	719	b1714	pheS	1795983	1796966	inside	
pORF_-_1797417	1797417	1797773	357	-	4	3	46	54	66	5051	5103	5187	b1716	rplT	1797417	1797773	equal	
pORF_-_1797826	1797826	1798038	213	-	5	1	13	14	15	200	203	206	b1717	rpmI	1797826	1798023	inside	
pORF_-_1798120	1798120	1798554	435	-	5	12	51	61	69	1833	1928	2042	b1718	infC	1798120	1798662	contain	
pORF_-_1798666	1798666	1800594	1929	-	5	19	45	85	118	449	704	944	b1719	thrS	1798666	1800594	equal	
pORF_-_1803349	1803349	1804107	759	-	5	0	1	1	1	3	3	3	b1722	ydiY	1803349	1804107	equal	
pORF_-_1806721	1806721	1807257	537	-	5	0	0	0	1	0	0	2	b1726	yniB	1806721	1807257	equal	
pORF_-_1808249	1808249	1808374	126	-	6	1	1	1	1	0	0	0						FP
pORF_-_1817479	1817479	1817829	351	-	5	0	0	1	2	0	2	5	b1736	chbA	1817479	1817829	equal	
pORF_-_1817880	1817880	1819238	1359	-	4	0	1	1	1	2	2	2	b1737	chbC	1817880	1819238	equal	
pORF_-_1819323	1819323	1819643	321	-	4	0	1	1	2	2	2	6	b1738	chbB	1819323	1819643	equal	
pORF_-_1819942	1819942	1820280	339	-	5	0	4	11	17	388	442	513	b1739	osmE	1819942	1820280	equal	
pORF_-_1823164	1823164	1823649	486	-	5	0	0	1	4	0	2	9	b1743	spy	1823164	1823649	equal	
pORF_-_1824940	1824940	1826283	1344	-	5	0	1	1	1	2	2	2	b1745	astB	1824940	1826283	equal	
pORF_-_1826280	1826280	1827815	1536	-	4	0	0	0	1	0	0	4	b1746	astD	1826280	1827758	inside	
pORF_-_1827755	1827755	1828789	1035	-	6	0	0	0	1	0	0	2	b1747	astA	1827755	1828789	equal	
pORF_-_1827847	1827847	1828032	186	-	5	0	0	1	1	0	3	3						FP
pORF_-_1828786	1828786	1830006	1221	-	5	0	1	2	17	2	4	75	b1748	astC	1828786	1830006	equal	
pORF_-_1843023	1843023	1845041	2019	-	4	0	0	3	5	0	7	11	b1763	topB	1843023	1844984	inside	
pORF_-_1844989	1844989	1846038	1050	-	5	10	25	38	51	519	594	670	b1764	selD	1844989	1846032	inside	
pORF_-_1846149	1846149	1846700	552	-	4	6	14	20	26	627	656	697	b1765	ydjA	1846149	1846700	equal	
pORF_-_1848507	1848507	1848650	144	-	4	0	1	1	1	3	3	3						FP
pORF_-_1849126	1849126	1849221	96	-	5	0	0	0	1	0	0	2						FP
pORF_-_1852120	1852120	1852878	759	-	5	0	0	1	2	0	2	5	b1770	ydjF	1852120	1852878	equal	
pORF_-_1853015	1853015	1853995	981	-	6	0	0	0	1	0	0	2	b1771	ydjG	1853015	1853995	equal	
pORF_-_1854005	1854005	1854973	969	-	6	0	1	1	1	8	8	8	b1772	ydjH	1854005	1854952	inside	
pORF_-_1858280	1858280	1859356	1077	-	6	0	1	1	1	2	2	2	b1776	ydjL	1858280	1859356	equal	

pORF_-_1859726	1859726	1860043	318	-	6	0	1	3	3	20	27	27	b1777	yeaC	1859726	1859998	inside	
pORF_-_1860040	1860040	1860483	444	-	5	2	6	13	17	109	141	155	b1778	msrB	1860040	1860453	inside	
pORF_-_1863750	1863750	1864496	747	-	4	4	5	15	17	8	57	67	b1782	mipA	1863750	1864496	equal	
pORF_-_1878145	1878145	1878783	639	-	5	0	1	1	1	2	2	2	b1798	leuE	1878145	1878783	equal	
pORF_-_1886085	1886085	1887836	1752	-	4	0	3	5	19	8	13	72	b1805	fadD	1886085	1887770	inside	
pORF_-_1887975	1887975	1888556	582	-	4	1	3	5	8	6	12	24	b1806	yeaY	1887975	1888556	equal	
pORF_-_1888596	1888596	1889291	696	-	4	2	6	9	14	22	35	55	b1807	yeaZ	1888596	1889291	equal	
pORF_-_1892576	1892576	1892755	180	-	6	0	0	1	1	0	4	4	b1811	yoaH	1892576	1892755	equal	
pORF_-_1898053	1898053	1899609	1557	-	5	0	0	2	4	0	4	8	b1816	yoaE	1898053	1899609	equal	
pORF_-_1900599	1900599	1900745	147	-	4	0	1	1	1	2	2	2						FP
pORF_-_1904275	1904275	1905084	810	-	5	0	1	4	6	2	14	18	b1822	rrmA	1904275	1905084	equal	
pORF_-_1905250	1905250	1905459	210	-	5	13	30	33	37	2400	2604	2718	b1823	cspC	1905250	1905459	equal	
pORF_-_1906230	1906230	1906538	309	-	4	0	1	1	1	5	5	5						FP
pORF_-_1907332	1907332	1908123	792	-	5	10	16	22	27	61	86	109	b1827	kdgR	1907332	1908123	equal	
pORF_-_1909719	1909719	1910600	882	-	4	2	2	4	7	0	5	11	b1829	htpX	1909719	1910600	equal	
pORF_-_1910792	1910792	1912888	2097	-	6	6	30	48	66	388	508	601	b1830	prc	1910792	1912840	inside	
pORF_-_1912860	1912860	1913558	699	-	4	11	34	46	53	353	401	426	b1831	proQ	1912860	1913558	equal	
pORF_-_1913655	1913655	1914206	552	-	4	3	14	22	30	254	396	440	b1832	yebR	1913655	1914152	inside	
pORF_-_1914726	1914726	1914833	108	-	4	0	1	1	1	2	2	2						FP
pORF_-_1921389	1921389	1921730	342	-	4	2	5	10	15	22	40	57	b1839	yebY	1921389	1921730	equal	
pORF_-_1922619	1922619	1922993	375	-	4	0	1	3	4	6	16	29	b1841	yobA	1922619	1922993	equal	
pORF_-_1926281	1926281	1926622	342	-	6	0	1	1	1	2	2	2						FP
pORF_-_1927072	1927072	1927731	660	-	5	0	1	2	2	6	9	9	b1846	yebE	1927072	1927731	equal	
pORF_-_1928058	1928058	1928426	369	-	4	0	4	7	10	41	52	60	b1847	yebF	1928058	1928414	inside	
pORF_-_1928481	1928481	1928771	291	-	4	1	2	5	6	3	15	17	b1848	yebG	1928481	1928771	equal	
pORF_-_1930139	1930139	1930780	642	-	6	9	32	41	51	916	1177	1425	b1850	eda	1930139	1930780	equal	
pORF_-_1930817	1930817	1932628	1812	-	6	0	0	4	6	0	9	13	b1851	edd	1930817	1932628	equal	
pORF_-_1932863	1932863	1934338	1476	-	6	14	24	47	68	111	203	290	b1852	zwf	1932863	1934338	equal	
pORF_-_1935053	1935053	1935178	126	-	6	0	1	1	1	3	3	3						FP
pORF_-_1937246	1937246	1938217	972	-	6	2	2	5	9	0	11	23	b1855	lpxM	1937246	1938217	equal	
pORF_-_1938337	1938337	1939659	1323	-	5	0	2	3	3	28	30	30	b1856	yebA	1938337	1939659	equal	
pORF_-_1938555	1938555	1938728	174	-	4	0	1	1	1	2	2	2						FP
pORF_-_1939675	1939675	1940733	1059	-	5	10	55	88	125	2678	3037	3622	b1857	znuA	1939675	1940607	inside	
pORF_-_1942370	1942370	1943380	1011	-	6	1	3	7	10	4	15	23	b1860	ruvB	1942370	1943380	equal	
pORF_-_1943389	1943389	1944000	612	-	5	0	1	2	3	4	8	12	b1861	ruvA	1943389	1944000	equal	
pORF_-_1944879	1944879	1945403	525	-	4	1	2	2	2	2	2	2	b1863	ruvC	1944879	1945400	inside	
pORF_-_1945435	1945435	1946175	741	-	5	9	24	33	41	593	627	666	b1864	yebC	1945435	1946175	equal	
pORF_-_1946774	1946774	1948546	1773	-	6	23	58	90	119	1117	1337	1560	b1866	aspS	1946774	1948546	equal	
pORF_-_1951507	1951507	1951842	336	-	5	0	1	1	1	8	8	8						FP
pORF_-_1952602	1952602	1955049	2448	-	5	0	1	2	2	4	6	6	b1872	torZ	1952602	1955031	inside	
pORF_-_1956544	1956544	1957290	747	-	5	0	2	4	6	4	10	16	b1874	cutC	1956544	1957290	equal	
pORF_-_1957304	1957304	1957876	573	-	6	0	3	5	5	19	26	26	b1875	yecM	1957304	1957870	inside	
pORF_-_1960996	1960996	1963149	2154	-	5	0	0	1	1	0	2	2	b1879	flhA	1960996	1963074	inside	
pORF_-_1964417	1964417	1965091	675	-	6	0	8	12	12	72	84	84	b1881	cheZ	1964417	1965061	inside	
pORF_-_1965072	1965072	1965461	390	-	4	0	3	6	9	17	29	39	b1882	cheY	1965072	1965461	equal	
pORF_-_1965476	1965476	1966525	1050	-	6	0	2	4	4	6	13	13	b1883	cheB	1965476	1966525	equal	



pORF_-_1967407	1967407	1969011	1605	-	5	0	18	22	22	321	337	337	b1885	tap	1967407	1969008	inside	
pORF_-_1969054	1969054	1970736	1683	-	5	0	52	71	80	1259	1377	1400	b1886	tar	1969054	1970715	inside	
pORF_-_1970860	1970860	1971363	504	-	5	0	7	7	8	63	63	65	b1887	cheW	1970860	1971363	equal	
pORF_-_1971384	1971384	1973402	2019	-	4	0	24	35	35	301	338	338	b1888	cheA	1971384	1973348	inside	
pORF_-_1973353	1973353	1974279	927	-	5	0	1	1	1	2	2	2	b1889	motB	1973353	1974279	equal	
pORF_-_1974276	1974276	1975163	888	-	4	0	2	2	2	22	22	22	b1890	motA	1974276	1975163	equal	
pORF_-_1975871	1975871	1976230	360	-	6	0	0	1	1	0	2	2	b1892	flhD	1975871	1976221	inside	
pORF_-_1978212	1978212	1979645	1434	-	4	0	4	8	16	11	21	60	b1896	otsA	1978212	1979636	inside	
pORF_-_1979611	1979611	1980468	858	-	5	0	1	1	2	16	16	18	b1897	otsB	1979611	1980411	inside	
pORF_-_1980578	1980578	1981567	990	-	6	0	0	0	1	0	0	2	b4460	araH	1980578	1981564	inside	
pORF_-_1983163	1983163	1984203	1041	-	5	2	4	4	10	5	5	37	b1901	araF	1983163	1984152	inside	
pORF_-_1985531	1985531	1985782	252	-	6	0	2	4	6	66	72	78	b4537	yecJ	1985531	1985782	equal	
pORF_-_1987275	1987275	1987514	240	-	4	0	0	1	1	0	2	2	b1906	yecH	1987275	1987514	equal	
pORF_-_1988978	1988978	1989643	666	-	6	0	4	10	13	21	37	48	b1908	yecA	1988978	1989643	equal	
pORF_-_1990898	1990898	1992730	1833	-	6	0	1	4	5	2	11	13	b1913	uvrC	1990898	1992730	equal	
pORF_-_1992727	1992727	1993383	657	-	5	0	2	5	5	8	17	17	b1914	uvrY	1992727	1993383	equal	
pORF_-_1995086	1995086	1995838	753	-	6	2	16	20	23	248	261	271	b1917	yecC	1995086	1995838	equal	
pORF_-_1995835	1995835	1996503	669	-	5	0	0	1	1	0	2	2	b1918	yecS	1995835	1996503	equal	
pORF_-_1996518	1996518	1997600	1083	-	4	2	12	21	29	426	476	527	b1919	dcyD	1996518	1997504	inside	
pORF_-_1997609	1997609	1998466	858	-	6	13	61	75	87	1425	1471	1529	b1920	fliY	1997609	1998409	inside	
pORF_-_1999094	1999094	1999813	720	-	6	1	5	8	8	11	22	22	b1922	fliA	1999094	1999813	equal	
pORF_-_2000134	2000134	2001630	1497	-	5	0	45	65	65	1267	1415	1415	b1923	fliC	2000134	2001630	equal	
pORF_-_2005701	2005701	2006180	480	-	4	0	5	13	20	140	166	191	b1928	yedD	2005701	2006114	inside	
pORF_-_2010724	2010724	2011068	345	-	5	0	1	1	1	2	2	2	b1937	fliE	2010724	2011038	inside	
pORF_-_2016229	2016229	2016708	480	-	5	0	1	2	2	2	4	4						FP
pORF_-_2024347	2024347	2026056	1710	-	5	0	0	1	2	0	2	4	b1956	yedQ	2024347	2026041	inside	
pORF_-_2024655	2024655	2024816	162	-	4	0	1	1	2	2	2	7						FP
pORF_-_2026473	2026473	2027390	918	-	4	0	0	0	1	0	0	3	b1958	yedI	2026473	2027390	equal	
pORF_-_2028923	2028923	2030350	1428	-	6	0	1	3	4	3	7	9	b1961	dcm	2028923	2030341	inside	
pORF_-_2030408	2030408	2031103	696	-	6	0	0	1	1	0	2	2	b1962	yedJ	2030408	2031103	equal	
pORF_-_2033476	2033476	2033712	237	-	5	0	0	0	1	0	0	3						FP
pORF_-_2052636	2052636	2053001	366	-	4	0	1	1	1	2	2	2						FP
pORF_-_2054416	2054416	2054673	258	-	5	0	1	1	1	6	6	6						FP
pORF_-_2057988	2057988	2058938	951	-	4	1	1	2	2	0	2	2	b1987	cbl	2057988	2058938	equal	
pORF_-_2060415	2060415	2061350	936	-	4	0	4	7	19	392	410	471	b1990	erfK	2060415	2061347	inside	
pORF_-_2061412	2061412	2062491	1080	-	5	0	0	4	5	0	11	13	b1991	cobT	2061412	2062491	equal	
pORF_-_2064329	2064329	2065345	1017	-	6	0	0	46	46	0	158	158	b1994	insH	2064329	2065345	equal	
pORF_-_2068621	2068621	2069022	402	-	5	0	1	1	1	5	5	5						FP
pORF_-_2077056	2077056	2077451	396	-	4	3	34	42	51	1236	1741	2073	b2007	yeeX	2077056	2077385	inside	
pORF_-_2078813	2078813	2079286	474	-	6	0	2	3	6	21	25	36	b2009	sbmC	2078813	2079286	equal	
pORF_-_2079405	2079405	2080577	1173	-	4	2	2	2	2	0	0	0	b2010	dacD	2079405	2080571	inside	
pORF_-_2082250	2082250	2082477	228	-	5	0	1	2	2	5	7	7	b2012	yeeD	2082250	2082477	equal	
pORF_-_2083728	2083728	2085092	1365	-	4	3	4	4	4	3	3	3	b2014	yeeF	2083728	2085086	inside	
pORF_-_2086328	2086328	2087152	825	-	6	3	13	19	30	198	242	297	b2016	yeeZ	2086328	2087152	equal	
pORF_-_2087486	2087486	2087764	279	-	6	0	1	1	1	2	2	2	b2017	yefM	2087486	2087737	inside	
pORF_-_2095345	2095345	2096361	1017	-	5	9	16	28	41	146	210	271	b2027	cld	2095345	2096325	inside	

pORF_-_2097886	2097886	2099292	1407	-	5	45	123	166	211	3684	4495	5222	b2029	gnd	2097886	2099292	equal	
pORF_-_2099919	2099919	2100935	1017	-	4	0	0	46	46	0	158	158	b2030	insH	2099919	2100935	equal	
pORF_-_2100940	2100940	2101413	474	-	5	0	0	1	1	0	2	2	b4571	wbbL	2100968	2101413	inside	
pORF_-_2101415	2101415	2102533	1119	-	6	0	2	4	4	20	26	26	b2032	wbbK	2101415	2102533	equal	
pORF_-_2102518	2102518	2103108	591	-	5	1	2	2	2	2	2	2	b2033	wbbJ	2102518	2103108	equal	
pORF_-_2103089	2103089	2104087	999	-	6	7	18	24	26	281	300	304	b2034	wbbI	2103089	2104081	inside	
pORF_-_2105250	2105250	2106353	1104	-	4	10	15	27	37	33	140	217	b2036	glf	2105250	2106353	equal	
pORF_-_2107605	2107605	2108162	558	-	4	2	3	5	6	3	14	16	b2038	rfbC	2107605	2108162	equal	
pORF_-_2108162	2108162	2109043	882	-	6	13	26	47	58	182	286	337	b2039	rfbA	2108162	2109043	equal	
pORF_-_2109101	2109101	2110000	900	-	6	3	12	21	27	60	86	109	b2040	rfbD	2109101	2110000	equal	
pORF_-_2110000	2110000	2111085	1086	-	5	13	24	47	66	411	579	688	b2041	rfbB	2110000	2111085	equal	
pORF_-_2111458	2111458	2112363	906	-	5	11	43	57	73	1483	1610	1711	b2042	galF	2111458	2112351	inside	
pORF_-_2113931	2113931	2115151	1221	-	6	0	1	1	1	2	2	2	b2044	wcaL	2113931	2115151	equal	
pORF_-_2119633	2119633	2121051	1419	-	5	1	1	1	1	0	0	0	b2048	cpsG	2119633	2121003	inside	
pORF_-_2121108	2121108	2122544	1437	-	4	0	2	2	2	4	4	4	b2049	cpsB	2121108	2122544	equal	
pORF_-_2125217	2125217	2126338	1122	-	6	0	1	1	1	2	2	2	b2053	gmd	2125217	2126338	equal	
pORF_-_2126928	2126928	2127674	747	-	4	1	1	1	1	0	0	0	b2055	wcaE	2126928	2127674	equal	
pORF_-_2130091	2130091	2130579	489	-	5	1	1	1	1	0	0	0	b2058	wcaB	2130091	2130579	equal	
pORF_-_2136978	2136978	2137187	210	-	4	0	1	1	1	5	5	5						FP
pORF_-_2137783	2137783	2139636	1854	-	5	0	2	5	9	5	11	21	b2064	asmA	2137783	2139636	equal	
pORF_-_2139658	2139658	2140239	582	-	5	1	1	5	7	0	10	19	b2065	dcd	2139658	2140239	equal	
pORF_-_2140331	2140331	2141035	705	-	6	1	3	8	13	42	56	74	b2066	udk	2140331	2140972	inside	
pORF_-_2155333	2155333	2155584	252	-	5	0	1	1	2	3	3	12						FP
pORF_-_2155761	2155761	2155934	174	-	4	0	0	1	2	0	10	20						FP
pORF_-_2160571	2160571	2160684	114	-	5	0	0	0	1	0	0	3						FP
pORF_-_2163650	2163650	2164723	1074	-	6	0	1	1	1	6	6	6						FP
pORF_-_2164754	2164754	2165044	291	-	6	1	1	1	1	0	0	0						FP
pORF_-_2166013	2166013	2166390	378	-	5	0	0	0	1	0	0	3	b2085	yegR	2166013	2166330	inside	
pORF_-_2169857	2169857	2170897	1041	-	6	6	16	17	18	221	223	226	b2091	gatD	2169857	2170897	equal	
pORF_-_2170945	2170945	2172300	1356	-	5	1	4	8	8	32	53	53	b2092	gatC	2170945	2172300	equal	
pORF_-_2172304	2172304	2172588	285	-	5	3	16	20	22	469	532	564	b2093	gatB	2172304	2172588	equal	
pORF_-_2172619	2172619	2173071	453	-	5	4	23	31	36	1633	1700	1729	b2094	gatA	2172619	2173071	equal	
pORF_-_2173081	2173081	2174343	1263	-	5	10	53	65	67	1871	1922	1926	b2095	gatZ	2173081	2174343	equal	
pORF_-_2174372	2174372	2175232	861	-	6	5	61	72	83	2117	2341	2567	b2096	gatY	2174372	2175226	inside	
pORF_-_2174623	2174623	2174919	297	-	5	0	1	1	1	3	3	3						FP
pORF_-_2175534	2175534	2176658	1125	-	4	3	20	31	47	403	506	602	b2097	fbaB	2175534	2176586	inside	
pORF_-_2178272	2178272	2178811	540	-	6	0	0	1	1	0	2	2						FP
pORF_-_2180057	2180057	2180803	747	-	6	0	0	0	1	0	0	2	b2101	yegW	2180057	2180803	equal	
pORF_-_2180855	2180855	2181682	828	-	6	0	1	1	1	2	2	2	b2102	yegX	2180855	2181673	inside	
pORF_-_2181738	2181738	2182538	801	-	4	2	14	20	26	343	374	399	b2103	thiD	2181738	2182538	equal	
pORF_-_2182535	2182535	2183323	789	-	6	2	10	14	18	144	156	171	b2104	thiM	2182535	2183323	equal	
pORF_-_2183546	2183546	2183818	273	-	6	0	0	2	3	0	5	7	b2105	rcnR	2183546	2183818	equal	
pORF_-_2188948	2188948	2189667	720	-	5	0	1	1	1	2	2	2	b2110	yehC	2188948	2189667	equal	
pORF_-_2191081	2191081	2192220	1140	-	5	5	7	16	22	50	77	107	b2113	mrp	2191081	2192190	inside	
pORF_-_2195290	2195290	2195544	255	-	5	0	1	1	1	2	2	2						FP
pORF_-_2195382	2195382	2195678	297	-	4	0	2	2	2	9	9	9						FP

pORF_-_2198777	2198777	2198938	162	-	6	0	1	1	1	2	2	2								FP
pORF_-_2201040	2201040	2201201	162	-	4	0	1	1	1	7	7	7								FP
pORF_-_2205814	2205814	2206209	396	-	5	0	1	1	1	2	2	2								FP
pORF_-_2207516	2207516	2207638	123	-	6	0	1	1	1	3	3	3								FP
pORF_-_2210265	2210265	2210999	735	-	4	0	1	1	1	2	2	2	b2125	yehT	2210265	2210984	inside			
pORF_-_2214503	2214503	2215429	927	-	6	3	3	3	3	0	0	0	b2129	yehX	2214503	2215429	equal			
pORF_-_2215422	2215422	2216579	1158	-	4	0	1	1	1	2	2	2	b2130	yehY	2215422	2216579	equal			
pORF_-_2216586	2216586	2217503	918	-	4	1	13	17	21	96	109	129	b2131	osmF	2216586	2217503	equal			
pORF_-_2217714	2217714	2220083	2370	-	4	7	24	36	52	146	181	244	b2132	bglX	2217714	2220011	inside			
pORF_-_2221960	2221960	2222901	942	-	5	0	1	1	1	4	4	4	b2134	pbpG	2221960	2222892	inside			
pORF_-_2223066	2223066	2223677	612	-	4	0	0	0	1	0	0	3	b2135	yohC	2223066	2223653	inside			
pORF_-_2224033	2224033	2224407	375	-	5	0	1	1	1	4	4	4								FP
pORF_-_2224531	2224531	2225304	774	-	5	0	0	1	3	0	2	9	b2137	yohF	2224531	2225292	inside			
pORF_-_2226087	2226087	2226200	114	-	4	0	1	1	1	3	3	3								FP
pORF_-_2235791	2235791	2237311	1521	-	6	0	2	4	7	4	9	15	b2149	mgIA	2235791	2237311	equal			
pORF_-_2237372	2237372	2238370	999	-	6	0	46	48	66	1552	1559	1660	b2150	mgIB	2237372	2238370	equal			
pORF_-_2239832	2239832	2240989	1158	-	6	0	0	1	1	0	2	2	b2152	yeiB	2239832	2240989	equal			
pORF_-_2241006	2241006	2241674	669	-	4	4	25	35	40	1500	1573	1604	b2153	folE	2241006	2241674	equal			
pORF_-_2242800	2242800	2244791	1992	-	4	17	65	74	79	1159	1185	1195	b2155	cirA	2242800	2244791	equal			
pORF_-_2245085	2245085	2246554	1470	-	6	0	0	2	2	0	4	4	b2156	lysP	2245085	2246554	equal			
pORF_-_2246759	2246759	2247640	882	-	6	0	1	3	6	2	13	24	b2157	yeiE	2246759	2247640	equal			
pORF_-_2252267	2252267	2253208	942	-	6	0	1	1	1	2	2	2	b2162	rihB	2252267	2253208	equal			
pORF_-_2255451	2255451	2256389	939	-	4	0	2	2	2	5	5	5	b2165	yeiN	2255451	2256389	equal			
pORF_-_2257741	2257741	2259432	1692	-	5	0	3	12	17	51	166	216	b2167	fruA	2257741	2259432	equal			
pORF_-_2259449	2259449	2260387	939	-	6	0	0	4	6	0	11	15	b2168	fruK	2259449	2260387	equal			
pORF_-_2260387	2260387	2261517	1131	-	5	0	6	21	27	35	89	109	b2169	fruB	2260387	2261517	equal			
pORF_-_2275915	2275915	2276259	345	-	5	0	1	1	2	3	3	5	b2181	yejG	2275915	2276259	equal			
pORF_-_2277810	2277810	2278505	696	-	4	3	9	12	16	56	77	95	b2183	rsuA	2277810	2278505	equal			
pORF_-_2280403	2280403	2280627	225	-	5	0	1	1	1	2	2	2								FP
pORF_-_2280962	2280962	2281969	1008	-	6	0	12	21	31	79	124	186	b2186	yejK	2280962	2281969	equal			
pORF_-_2282168	2282168	2282368	201	-	6	0	1	1	1	9	9	9								FP
pORF_-_2284263	2284263	2284448	186	-	4	0	0	0	1	0	0	2								FP
pORF_-_2287087	2287087	2288103	1017	-	5	0	0	46	46	0	158	158	b2192	insH	2287087	2288103	equal			
pORF_-_2289380	2289380	2290432	1053	-	6	0	0	1	1	0	2	2	b2194	ccmH	2289380	2290432	equal			
pORF_-_2295043	2295043	2295666	624	-	5	0	0	1	2	0	2	4	b2201	ccmA	2295043	2295666	equal			
pORF_-_2298289	2298289	2300775	2487	-	5	0	0	2	2	0	4	4	b2206	napA	2298289	2300775	equal			
pORF_-_2303130	2303130	2304776	1647	-	4	2	7	8	8	65	67	67	b2210	mgo	2303130	2304776	equal			
pORF_-_2304994	2304994	2306637	1644	-	5	0	0	3	6	0	9	16	b2211	yojI	2304994	2306637	equal			
pORF_-_2309668	2309668	2310771	1104	-	5	24	42	63	68	100	188	205	b2215	ompC	2309668	2310771	equal			
pORF_-_2314633	2314633	2314743	111	-	5	0	1	1	1	2	2	2								FP
pORF_-_2315049	2315049	2317898	2850	-	4	0	2	4	6	7	13	17	b2218	rcsC	2315049	2317898	equal			
pORF_-_2322294	2322294	2322452	159	-	4	0	1	1	1	4	4	4								FP
pORF_-_2325031	2325031	2325177	147	-	5	0	1	1	1	2	2	2								FP
pORF_-_2328321	2328321	2332439	4119	-	4	0	1	2	3	2	4	6	b4500	yfaS	2327820	2332424	contain			
pORF_-_2332358	2332358	2333008	651	-	6	0	2	2	2	4	4	4	b2229	yfaT	2332358	2332981	inside			
pORF_-_2332978	2332978	2334714	1737	-	5	2	2	2	2	0	0	0	b2230	yfaA	2332978	2334666	inside			

pORF_-_2334815	2334815	2337442	2628	-	6	29	78	110	136	1413	1561	1681	b2231	gyrA	2334815	2337442	equal	
pORF_-_2338439	2338439	2342191	3753	-	6	0	0	1	1	0	3	3	b2233	yfaL	2338439	2342191	equal	
pORF_-_2338813	2338813	2338917	105	-	5	0	0	0	1	0	0	4						FP
pORF_-_2346032	2346032	2346142	111	-	6	0	1	1	1	2	2	2						FP
pORF_-_2347957	2347957	2349090	1134	-	5	0	21	25	30	230	238	255	b2239	glpQ	2347957	2349033	inside	
pORF_-_2349038	2349038	2350396	1359	-	6	0	1	1	1	2	2	2	b2240	glpT	2349038	2350396	equal	
pORF_-_2349775	2349775	2350026	252	-	5	0	1	1	1	2	2	2						FP
pORF_-_2360453	2360453	2361655	1203	-	6	0	1	7	11	2	15	23	b2249	yfaY	2360453	2361655	equal	
pORF_-_2361755	2361755	2362318	564	-	6	0	0	1	2	0	2	5	b2250	yfaZ	2361755	2362297	inside	
pORF_-_2363040	2363040	2363669	630	-	4	0	1	1	1	3	3	3	b2252	ais	2363040	2363642	inside	
pORF_-_2366589	2366589	2366933	345	-	4	0	1	1	1	2	2	2						FP
pORF_-_2371294	2371294	2371590	297	-	5	0	0	1	2	0	2	4	b2259	pmrD	2371294	2371560	inside	
pORF_-_2371670	2371670	2373025	1356	-	6	0	1	1	1	2	2	2	b2260	menE	2371670	2373025	equal	
pORF_-_2373022	2373022	2373984	963	-	5	0	1	4	5	2	8	11	b2261	menC	2373022	2373984	equal	
pORF_-_2373984	2373984	2374841	858	-	4	10	14	20	28	157	178	216	b2262	menB	2373984	2374841	equal	
pORF_-_2375611	2375611	2377632	2022	-	5	1	1	1	1	0	0	0	b2264	menD	2375611	2377281	inside	
pORF_-_2377370	2377370	2378665	1296	-	6	1	2	2	3	2	2	4	b2265	menF	2377370	2378665	equal	
pORF_-_2378744	2378744	2379049	306	-	6	2	19	23	30	801	941	1174	b2266	elaB	2378744	2379049	equal	
pORF_-_2379104	2379104	2379565	462	-	6	0	3	5	5	43	50	50	b2267	elaA	2379104	2379565	equal	
pORF_-_2387294	2387294	2387428	135	-	6	0	1	1	1	2	2	2						FP
pORF_-_2388070	2388070	2389527	1458	-	5	0	0	0	1	0	0	2	b2276	nuoN	2388070	2389527	equal	
pORF_-_2391227	2391227	2393068	1842	-	6	0	0	1	1	0	2	2	b2278	nuoL	2391227	2393068	equal	
pORF_-_2393065	2393065	2393367	303	-	5	0	0	0	1	0	0	4	b2279	nuoK	2393065	2393367	equal	
pORF_-_2393364	2393364	2393918	555	-	4	0	0	1	2	0	3	5	b2280	nuoJ	2393364	2393918	equal	
pORF_-_2393930	2393930	2394472	543	-	6	0	7	13	19	185	206	237	b2281	nuoI	2393930	2394472	equal	
pORF_-_2395461	2395461	2398193	2733	-	4	20	41	67	94	152	295	439	b2283	nuoG	2395461	2398187	inside	
pORF_-_2398240	2398240	2399577	1338	-	5	10	21	39	54	175	248	342	b2284	nuoF	2398240	2399577	equal	
pORF_-_2399574	2399574	2400074	501	-	4	3	8	12	15	88	105	113	b2285	nuoE	2399574	2400074	equal	
pORF_-_2400077	2400077	2401879	1803	-	6	17	25	53	83	85	223	390	b2286	nuoC	2400077	2401867	inside	
pORF_-_2401973	2401973	2402635	663	-	6	5	8	12	14	70	92	106	b2287	nuoB	2401973	2402635	equal	
pORF_-_2402651	2402651	2403094	444	-	6	3	4	7	11	3	11	22	b2288	nuoA	2402651	2403094	equal	
pORF_-_2403725	2403725	2404663	939	-	6	0	0	3	6	0	9	16	b2289	lrhA	2403725	2404663	equal	
pORF_-_2409461	2409461	2410129	669	-	6	0	7	10	13	89	104	135	b2293	yfbT	2409461	2410111	inside	
pORF_-_2410122	2410122	2410634	513	-	4	6	14	24	35	90	138	184	b2294	yfbU	2410122	2410616	inside	
pORF_-_2412697	2412697	2414967	2271	-	5	0	1	1	1	3	3	3						FP
pORF_-_2416656	2416656	2417198	543	-	4	3	5	10	14	23	123	179	b2299	yfcD	2416656	2417198	equal	
pORF_-_2417256	2417256	2417810	555	-	4	2	4	8	12	12	36	57	b2300	yfcE	2417256	2417810	equal	
pORF_-_2417863	2417863	2418507	645	-	5	0	1	2	4	4	6	10	b2301	yfcF	2417863	2418507	equal	
pORF_-_2418616	2418616	2418816	201	-	5	0	1	1	1	3	3	3						FP
pORF_-_2420671	2420671	2421561	891	-	5	0	0	1	2	0	2	6	b2305	yfcI	2420671	2421561	equal	
pORF_-_2421758	2421758	2422531	774	-	6	1	7	11	15	97	113	130	b2306	hisP	2421758	2422531	equal	
pORF_-_2423252	2423252	2423938	687	-	6	0	0	0	1	0	0	2	b2308	hisQ	2423252	2423938	equal	
pORF_-_2424028	2424028	2424810	783	-	5	11	59	80	104	2033	2219	2365	b2309	hisJ	2424028	2424810	equal	
pORF_-_2425031	2425031	2425813	783	-	6	6	33	38	60	744	762	923	b2310	argT	2425031	2425813	equal	
pORF_-_2425680	2425680	2425826	147	-	4	0	1	1	1	34	34	34						FP
pORF_-_2426079	2426079	2426648	570	-	4	0	1	2	2	2	4	4	b2311	ubiX	2426079	2426648	equal	

pORF_-_2426709	2426709	2426891	183	-	4	0	1	1	1	6	6	6							FP
pORF_-_2426743	2426743	2428260	1518	-	5	8	23	46	68	226	426	548	b2312	purF	2426743	2428260	equal		
pORF_-_2429044	2429044	2429724	681	-	5	0	0	4	6	0	12	20	b2314	dedD	2429044	2429706	inside		
pORF_-_2429696	2429696	2430964	1269	-	6	0	7	12	17	42	61	79	b2315	folC	2429696	2430964	equal		
pORF_-_2431034	2431034	2432032	999	-	6	4	28	36	46	1001	1082	1144	b2316	accD	2431034	2431948	inside		
pORF_-_2432846	2432846	2433658	813	-	6	0	0	2	4	0	5	9	b2318	truA	2432846	2433658	equal		
pORF_-_2433397	2433397	2433624	228	-	5	0	0	1	2	0	44	88							FP
pORF_-_2433658	2433658	2434671	1014	-	5	3	20	28	35	267	296	317	b2319	usg	2433658	2434671	equal		
pORF_-_2434737	2434737	2435873	1137	-	4	7	14	26	40	241	298	371	b2320	pdxB	2434737	2435873	equal		
pORF_-_2437766	2437766	2437873	108	-	6	0	1	1	1	2	2	2							FP
pORF_-_2438407	2438407	2439627	1221	-	5	20	55	76	97	2310	2612	2821	b2323	fabB	2438407	2439627	equal		
pORF_-_2439705	2439705	2439926	222	-	4	0	1	1	1	2	2	2							FP
pORF_-_2440591	2440591	2440686	96	-	5	0	0	1	1	0	2	2							FP
pORF_-_2441913	2441913	2442191	279	-	4	1	6	9	10	37	51	53	b2325	yfcL	2441913	2442191	equal		
pORF_-_2443582	2443582	2444406	825	-	5	0	2	2	2	42	42	42	b2328	mepA	2443582	2444406	equal		
pORF_-_2444410	2444410	2445498	1089	-	5	2	14	24	35	428	486	535	b2329	aroC	2444410	2445495	inside		
pORF_-_2445530	2445530	2446795	1266	-	6	3	9	14	19	70	96	113	b2330	prmB	2445530	2446462	inside		
pORF_-_2454349	2454349	2454834	486	-	5	0	0	1	2	0	4	8	b2340	sixA	2454349	2454834	equal		
pORF_-_2455037	2455037	2457181	2145	-	6	0	2	3	9	9	11	30	b2341	fadJ	2455037	2457181	equal		
pORF_-_2457181	2457181	2458491	1311	-	5	0	4	5	11	31	34	71	b2342	fadI	2457181	2458491	equal		
pORF_-_2457788	2457788	2457844	57	-	6	0	0	0	1	0	0	3							
pORF_-_2458672	2458672	2458980	309	-	5	2	4	6	7	8	13	16	b2343	yfcZ	2458672	2458956	inside		
pORF_-_2462274	2462274	2463029	756	-	4	4	6	10	13	6	18	28	b2346	vacJ	2462274	2463029	equal		
pORF_-_2465886	2465886	2465978	93	-	4	0	1	1	1	2	2	2							FP
pORF_-_2466646	2466646	2466930	285	-	5	0	0	1	1	0	5	5							FP
pORF_-_2476708	2476708	2477118	411	-	5	0	0	1	2	0	10	20							FP
pORF_-_2490026	2490026	2491276	1251	-	6	1	1	1	1	0	0	0	b2374	frc	2490026	2491276	equal		
pORF_-_2491789	2491789	2492424	636	-	5	0	1	1	1	4	4	4	b2375	yfdX	2491789	2492424	equal		
pORF_-_2495079	2495079	2496317	1239	-	4	0	3	9	14	6	21	35	b2379	yfdZ	2495079	2496317	equal		
pORF_-_2497374	2497374	2497661	288	-	4	0	1	2	2	3	11	11							FP
pORF_-_2497914	2497914	2498267	354	-	4	0	1	1	1	16	16	16							FP
pORF_-_2499623	2499623	2499790	168	-	6	0	0	1	1	0	2	2							FP
pORF_-_2500012	2500012	2502507	2496	-	5	7	7	7	7	0	0	0	b2383	fryA	2500012	2502507	equal		
pORF_-_2504669	2504669	2505916	1248	-	6	0	2	2	2	11	11	11	b2386	fryC	2504669	2505916	equal		
pORF_-_2506483	2506483	2507448	966	-	5	4	11	20	32	227	268	307	b2388	glk	2506483	2507448	equal		
pORF_-_2509490	2509490	2510728	1239	-	6	0	1	1	1	3	3	3	b2392	mntH	2509490	2510728	equal		
pORF_-_2511315	2511315	2511461	147	-	4	0	1	1	1	2	2	2							FP
pORF_-_2513665	2513665	2515971	2307	-	5	0	0	2	3	0	6	8	b2395	yfeA	2513665	2515854	inside		
pORF_-_2517279	2517279	2518694	1416	-	4	21	46	75	93	396	544	637	b2400	gltX	2517279	2518694	equal		
pORF_-_2519615	2519615	2520514	900	-	6	0	1	1	1	15	15	15	b2405	xapR	2519615	2520499	inside		
pORF_-_2526183	2526183	2528198	2016	-	4	2	12	23	32	59	103	139	b2411	ligA	2526183	2528198	equal		
pORF_-_2528269	2528269	2529306	1038	-	5	0	1	6	14	6	33	79	b2412	zipA	2528269	2529255	inside		
pORF_-_2534408	2534408	2535259	852	-	6	2	3	7	12	4	23	42	b2418	pdxK	2534408	2535259	equal		
pORF_-_2536694	2536694	2537683	990	-	6	2	19	29	41	472	558	616	b2421	cysM	2536694	2537605	inside		
pORF_-_2537026	2537026	2537271	246	-	5	0	0	1	1	0	5	5							FP
pORF_-_2537739	2537739	2538836	1098	-	4	4	12	26	30	43	102	111	b2422	cysA	2537739	2538836	equal		

pORF_-_2539701	2539701	2540534	834	-	4	0	0	1	1	0	3	3	b2424	cysU	2539701	2540534	equal	
pORF_-_2540534	2540534	2541550	1017	-	6	0	30	47	67	1560	1653	1769	b2425	cysP	2540534	2541550	equal	
pORF_-_2541854	2541854	2542711	858	-	6	3	10	11	15	122	126	145	b2426	ucpA	2541854	2542645	inside	
pORF_-_2546649	2546649	2547014	366	-	4	0	1	1	1	18	18	18						FP
pORF_-_2547668	2547668	2548594	927	-	6	6	18	31	42	157	246	318	b2431	yfeX	2547668	2548567	inside	
pORF_-_2548663	2548663	2549238	576	-	5	0	3	7	10	9	22	32	b2432	yfeY	2548663	2549238	equal	
pORF_-_2549735	2549735	2550271	537	-	6	0	1	4	5	14	21	24	b2434	ypeA	2549735	2550160	inside	
pORF_-_2553763	2553763	2554422	660	-	5	0	1	2	4	5	8	12	b2439	eutL	2553763	2554422	equal	
pORF_-_2554432	2554432	2555319	888	-	5	0	1	1	2	2	2	4	b2440	eutC	2554432	2555319	equal	
pORF_-_2555340	2555340	2556743	1404	-	4	2	2	4	7	0	4	13	b2441	eutB	2555340	2556701	inside	
pORF_-_2556229	2556229	2556318	90	-	5	0	1	1	1	2	2	2						FP
pORF_-_2557572	2557572	2557898	327	-	4	0	1	1	1	3	3	3						FP
pORF_-_2560347	2560347	2560616	270	-	4	0	0	0	1	0	0	2						FP
pORF_-_2563503	2563503	2564906	1404	-	4	0	1	1	1	4	4	4	b2451	eutA	2563503	2564906	equal	
pORF_-_2568370	2568370	2569773	1404	-	5	2	4	4	4	9	9	9	b2455	eutE	2568370	2569773	equal	
pORF_-_2570179	2570179	2570514	336	-	5	0	2	3	5	10	14	19	b2457	eutM	2570179	2570472	inside	
pORF_-_2570511	2570511	2571527	1017	-	4	0	1	1	1	2	2	2	b2458	eutD	2570511	2571527	equal	
pORF_-_2570735	2570735	2571037	303	-	6	0	0	1	1	0	2	2						FP
pORF_-_2574120	2574120	2576399	2280	-	4	13	51	79	105	1255	1438	1664	b2463	maeB	2574120	2576399	equal	
pORF_-_2580925	2580925	2581527	603	-	5	0	1	1	1	4	4	4	b2467	nudK	2580925	2581500	inside	
pORF_-_2581568	2581568	2583547	1980	-	6	4	8	12	16	32	72	106	b2468	aegA	2581568	2583547	equal	
pORF_-_2587404	2587404	2587553	150	-	4	0	1	1	1	6	6	6						FP
pORF_-_2591866	2591866	2593881	2016	-	5	0	1	1	2	2	2	4	b2474	ypfI	2591866	2593881	equal	
pORF_-_2593896	2593896	2594759	864	-	4	0	1	2	2	7	9	9	b2475	ypfJ	2593896	2594759	equal	
pORF_-_2594927	2594927	2595649	723	-	6	12	58	74	91	1865	2183	2584	b2476	purC	2594927	2595640	inside	
pORF_-_2595853	2595853	2596890	1038	-	5	12	22	34	46	364	435	534	b2477	bamC	2595853	2596887	inside	
pORF_-_2596904	2596904	2597800	897	-	6	7	23	33	43	528	574	630	b2478	dapA	2596904	2597782	inside	
pORF_-_2605754	2605754	2606167	414	-	6	0	1	1	1	3	3	3						FP
pORF_-_2616097	2616097	2616843	747	-	5	0	0	0	2	0	0	4	b2496	hda	2616097	2616843	equal	
pORF_-_2618268	2618268	2618921	654	-	4	7	44	56	70	2390	2622	2779	b2498	upp	2618268	2618894	inside	
pORF_-_2628980	2628980	2630557	1578	-	6	27	54	89	121	388	655	883	b2507	guaA	2628980	2630557	equal	
pORF_-_2630626	2630626	2632161	1536	-	5	27	95	120	147	5126	5629	6276	b2508	guaB	2630626	2632092	inside	
pORF_-_2630829	2630829	2630978	150	-	4	0	1	1	1	9	9	9						FP
pORF_-_2632731	2632731	2632805	75	-	4	0	1	1	1	2	2	2						FP
pORF_-_2633621	2633621	2633872	252	-	6	0	0	1	1	0	2	2	b2510	yfgJ	2633621	2633836	inside	
pORF_-_2633906	2633906	2635417	1512	-	6	7	33	45	57	265	343	410	b2511	der	2633906	2635378	inside	
pORF_-_2635496	2635496	2636674	1179	-	6	9	15	29	45	38	136	249	b2512	bamB	2635496	2636674	equal	
pORF_-_2636685	2636685	2637305	621	-	4	2	9	14	18	49	84	106	b2513	yfgM	2636685	2637305	equal	
pORF_-_2637323	2637323	2638597	1275	-	6	16	31	52	69	172	255	323	b2514	hisS	2637323	2638597	equal	
pORF_-_2638708	2638708	2639826	1119	-	5	10	34	47	59	306	392	499	b2515	ispG	2638708	2639826	equal	
pORF_-_2639853	2639853	2640866	1014	-	4	7	19	27	36	132	155	188	b2516	yfgA	2639853	2640866	equal	
pORF_-_2641151	2641151	2642305	1155	-	6	8	11	14	14	61	76	76	b2517	rlmN	2641151	2642305	equal	
pORF_-_2642455	2642455	2642886	432	-	5	7	31	41	51	2475	2604	2717	b2518	ndk	2642455	2642886	equal	
pORF_-_2643391	2643391	2643645	255	-	5	0	1	1	1	4	4	4						FP
pORF_-_2645348	2645348	2650309	4962	-	6	0	5	12	28	15	29	76	b2520	yfhM	2645348	2650309	equal	
pORF_-_2652179	2652179	2652964	786	-	6	0	3	4	4	17	19	19	b2522	sseB	2652179	2652955	inside	

pORF_-_2653097	2653097	2654467	1371	-	6	14	37	55	72	466	557	653	b2523	pepB	2653097	2654380	inside	
pORF_-_2654558	2654558	2654758	201	-	6	2	2	4	5	0	9	12	b2524	iscX	2654558	2654758	equal	
pORF_-_2654770	2654770	2655105	336	-	5	5	9	15	20	111	143	167	b2525	fdx	2654770	2655105	equal	
pORF_-_2655107	2655107	2657011	1905	-	6	12	26	44	58	182	261	327	b2526	hscA	2655107	2656957	inside	
pORF_-_2656974	2656974	2657489	516	-	4	3	4	6	8	4	9	13	b2527	hscB	2656974	2657489	equal	
pORF_-_2657585	2657585	2657914	330	-	6	4	7	10	10	40	48	48	b2528	iscA	2657585	2657908	inside	
pORF_-_2657925	2657925	2658311	387	-	4	6	13	20	24	251	316	340	b2529	iscU	2657925	2658311	equal	
pORF_-_2658339	2658339	2659577	1239	-	4	20	56	78	102	2159	2394	2597	b2530	iscS	2658339	2659553	inside	
pORF_-_2659574	2659574	2659744	171	-	6	0	0	1	1	0	3	3						FP
pORF_-_2659665	2659665	2660153	489	-	4	3	20	25	28	338	416	447	b2531	iscR	2659665	2660153	equal	
pORF_-_2660605	2660605	2661345	741	-	5	6	10	16	22	48	78	107	b2532	trmJ	2660605	2661345	equal	
pORF_-_2672722	2672722	2673816	1095	-	5	1	1	1	1	0	0	0	b2545	yphC	2672722	2673783	inside	
pORF_-_2674872	2674872	2676383	1512	-	4	0	1	1	1	10	10	10	b2547	yphE	2674872	2676383	equal	
pORF_-_2677486	2677486	2680860	3375	-	5	0	1	1	1	2	2	2	b2549	yphG	2677486	2680767	inside	
pORF_-_2682276	2682276	2683535	1260	-	4	23	102	138	179	5603	7298	9264	b2551	glyA	2682276	2683529	inside	
pORF_-_2683172	2683172	2683366	195	-	6	0	1	1	1	2	2	2						FP
pORF_-_2685092	2685092	2685430	339	-	6	3	15	17	21	381	387	398	b2553	glnB	2685092	2685430	equal	
pORF_-_2685491	2685491	2686927	1437	-	6	0	0	1	2	0	4	10	b2554	yfhA	2685491	2686825	inside	
pORF_-_2686815	2686815	2687534	720	-	4	0	0	2	4	0	5	11	b2555	yfhG	2686815	2687528	inside	
pORF_-_2687693	2687693	2689183	1491	-	6	0	1	1	2	3	3	5	b2556	yfhK	2687693	2689120	inside	
pORF_-_2689678	2689678	2693565	3888	-	5	32	80	145	207	1155	1673	2222	b2557	purL	2689678	2693565	equal	
pORF_-_2698640	2698640	2699020	381	-	6	0	1	1	1	13	13	13	b2563	acpS	2698640	2699020	equal	
pORF_-_2699020	2699020	2699766	747	-	5	6	18	28	38	734	774	817	b2564	pdxJ	2699020	2699751	inside	
pORF_-_2699190	2699190	2699429	240	-	4	0	0	1	2	0	23	46						FP
pORF_-_2700503	2700503	2701408	906	-	6	0	5	9	12	40	60	72	b2566	era	2700503	2701408	equal	
pORF_-_2701405	2701405	2702085	681	-	5	3	9	19	27	183	234	264	b2567	rnc	2701405	2702085	equal	
pORF_-_2702357	2702357	2703331	975	-	6	0	5	12	17	36	56	70	b2568	lepB	2702357	2703331	equal	
pORF_-_2703347	2703347	2705146	1800	-	6	18	29	48	64	284	356	408	b2569	lepA	2703347	2705146	equal	
pORF_-_2705820	2705820	2706776	957	-	4	1	5	10	17	27	37	59	b2571	rseB	2705820	2706776	equal	
pORF_-_2706776	2706776	2707462	687	-	6	0	0	1	4	0	3	11	b2572	rseA	2706776	2707426	inside	
pORF_-_2707459	2707459	2708067	609	-	5	1	1	3	5	0	4	10	b2573	rpoE	2707459	2708034	inside	
pORF_-_2711668	2711668	2711988	321	-	5	0	1	1	1	2	2	2						FP
pORF_-_2714088	2714088	2714489	402	-	4	13	35	50	60	1743	1945	2018	b2579	yfiD	2714088	2714471	inside	
pORF_-_2715136	2715136	2715411	276	-	5	0	1	1	1	3	3	3						FP
pORF_-_2715513	2715513	2716625	1113	-	4	5	16	28	36	157	204	252	b2581	yfiF	2715513	2716550	inside	
pORF_-_2722470	2722470	2723768	1299	-	4	3	4	5	6	6	12	15	b2587	kgtP	2722470	2723768	equal	
pORF_-_2729622	2729622	2732207	2586	-	4	39	81	141	206	1085	1645	2256	b2592	clpB	2729622	2732195	inside	
pORF_-_2732325	2732325	2733056	732	-	4	5	6	6	8	34	34	43	b2593	yfiH	2732325	2733056	equal	
pORF_-_2733053	2733053	2734033	981	-	6	2	6	13	17	83	104	114	b2594	rluD	2733053	2734033	equal	
pORF_-_2734426	2734426	2734923	498	-	5	0	0	1	1	0	4	4						FP
pORF_-_2736970	2736970	2738091	1122	-	5	0	7	27	41	317	433	533	b2600	tyrA	2736970	2738091	equal	
pORF_-_2738102	2738102	2739241	1140	-	6	3	19	30	39	379	419	446	b2601	aroF	2738102	2739172	inside	
pORF_-_2742205	2742205	2742552	348	-	5	11	47	59	71	2742	2877	3033	b2606	rplS	2742205	2742552	equal	
pORF_-_2742594	2742594	2743361	768	-	4	3	4	7	9	10	19	37	b2607	trmD	2742594	2743361	equal	
pORF_-_2743392	2743392	2743949	558	-	4	5	9	15	18	33	57	69	b2608	rimM	2743392	2743940	inside	
pORF_-_2743959	2743959	2744267	309	-	4	6	24	33	43	2333	2457	2594	b2609	rpsP	2743959	2744207	inside	

pORF_-_2744456	2744456	2745817	1362	-	6	7	37	47	57	412	463	509	b2610	ffh	2744456	2745817	equal	
pORF_-_2748137	2748137	2748730	594	-	6	5	29	37	46	760	867	952	b2614	grpE	2748137	2748730	equal	
pORF_-_2752030	2752030	2752404	375	-	5	0	1	1	2	2	2	4	b2618	yjfF	2752030	2752320	inside	
pORF_-_2757053	2757053	2757265	213	-	6	0	1	1	1	2	2	2						FP
pORF_-_2769862	2769862	2770176	315	-	5	0	0	2	4	0	4	8	b2638	yjfU	2770024	2770176	inside	
pORF_-_2770189	2770189	2770782	594	-	5	0	1	1	1	2	2	2	b2641	yjfV	2770189	2771204	contain_f5	
pORF_-_2771624	2771624	2772043	420	-	6	0	0	1	1	0	3	3						FP
pORF_-_2773925	2773925	2774089	165	-	6	0	1	1	1	2	2	2						FP
pORF_-_2776168	2776168	2780877	4710	-	5	0	1	1	1	2	2	2	b2647	ypjA	2776168	2780748	inside	
pORF_-_2787959	2787959	2788240	282	-	6	0	1	1	1	2	2	2						FP
pORF_-_2794359	2794359	2794835	477	-	4	5	20	27	42	138	182	429	b2665	ygaU	2794359	2794808	inside	
pORF_-_2796113	2796113	2796517	405	-	6	6	27	37	49	642	779	920	b2669	stpA	2796113	2796517	equal	
pORF_-_2812240	2812240	2812755	516	-	5	6	26	41	57	1189	1281	1425	b2687	luxS	2812240	2812755	equal	
pORF_-_2812905	2812905	2814461	1557	-	4	4	6	17	27	11	49	85	b2688	gshA	2812905	2814461	equal	
pORF_-_2814959	2814959	2815525	567	-	6	0	2	4	4	23	29	29	b2690	yqaB	2814959	2815525	equal	
pORF_-_2816983	2816983	2817168	186	-	5	1	12	15	17	646	661	724	b2696	csrA	2816983	2817168	equal	
pORF_-_2817403	2817403	2820033	2631	-	5	44	103	147	193	968	1278	1538	b2697	alaS	2817403	2820033	equal	
pORF_-_2820161	2820161	2820661	501	-	6	0	0	0	1	0	0	5	b2698	recX	2820161	2820661	equal	
pORF_-_2820730	2820730	2821806	1077	-	5	9	38	50	64	1062	1131	1199	b2699	recA	2820730	2821791	inside	
pORF_-_2821871	2821871	2822371	501	-	6	0	3	6	9	9	17	23	b2700	ygaD	2821871	2822368	inside	
pORF_-_2822513	2822513	2823703	1191	-	6	0	0	4	9	0	12	34	b2701	mltB	2822513	2823598	inside	
pORF_-_2828805	2828805	2828960	156	-	4	0	1	1	1	2	2	2						FP
pORF_-_2833195	2833195	2835519	2325	-	5	0	1	1	1	2	2	2	b2712	hypF	2833195	2835447	inside	
pORF_-_2836276	2836276	2837352	1077	-	5	0	1	3	4	17	23	25	b2714	ascG	2836276	2837289	inside	
pORF_-_2838199	2838199	2838378	180	-	5	0	1	1	1	3	3	3						FP
pORF_-_2840595	2840595	2841065	471	-	4	0	1	2	2	4	6	6	b2717	hycI	2840595	2841065	equal	
pORF_-_2845437	2845437	2847263	1827	-	4	0	1	1	1	2	2	2	b2723	hycC	2845437	2847263	equal	
pORF_-_2854475	2854475	2854828	354	-	6	0	1	1	1	19	19	19	b2732	ygbA	2854475	2854828	equal	
pORF_-_2856291	2856291	2856563	273	-	4	0	1	1	1	14	14	14						FP
pORF_-_2864581	2864581	2865609	1029	-	5	1	5	16	26	43	97	158	b2741	rpoS	2864581	2865573	inside	
pORF_-_2865636	2865636	2866775	1140	-	4	5	5	15	23	0	30	58	b2742	nlpD	2865636	2866775	equal	
pORF_-_2866915	2866915	2867541	627	-	5	0	0	3	5	0	8	14	b2743	pcm	2866915	2867541	equal	
pORF_-_2867535	2867535	2868341	807	-	4	0	1	3	3	3	7	7	b2744	surE	2867535	2868296	inside	
pORF_-_2868277	2868277	2869326	1050	-	5	5	6	12	20	13	34	69	b2745	truD	2868277	2869326	equal	
pORF_-_2869323	2869323	2869802	480	-	4	0	9	12	14	87	105	133	b2746	ispF	2869323	2869802	equal	
pORF_-_2869802	2869802	2870512	711	-	6	1	2	7	11	8	20	28	b2747	ispD	2869802	2870512	equal	
pORF_-_2870531	2870531	2870842	312	-	6	0	0	1	2	0	4	6	b2748	ftsB	2870531	2870842	equal	
pORF_-_2871409	2871409	2872014	606	-	5	0	10	15	16	150	163	167	b2750	cysC	2871409	2872014	equal	
pORF_-_2872014	2872014	2873441	1428	-	4	1	19	41	48	368	508	535	b2751	cysN	2872014	2873441	equal	
pORF_-_2873443	2873443	2874351	909	-	5	0	23	38	39	659	748	750	b2752	cysD	2873443	2874351	equal	
pORF_-_2879073	2879073	2880164	1092	-	4	0	1	2	2	2	4	4	b2758	ygcJ	2879073	2880164	equal	
pORF_-_2882575	2882575	2885241	2667	-	5	0	0	0	1	0	0	3	b2761	ygcB	2882575	2885241	equal	
pORF_-_2884083	2884083	2884262	180	-	4	0	1	1	1	6	6	6						FP
pORF_-_2885600	2885600	2886373	774	-	6	0	12	20	24	233	263	274	b2762	cysH	2885600	2886334	inside	
pORF_-_2886409	2886409	2888121	1713	-	5	0	42	70	82	1351	1533	1612	b2763	cysI	2886409	2888121	equal	
pORF_-_2888121	2888121	2889920	1800	-	4	0	34	60	77	859	1025	1113	b2764	cysJ	2888121	2889920	equal	



pORF_-_2895986	2895986	2897440	1455	-	6	1	13	13	13	98	98	98	b4463	ygcU	2895986	2897440	equal	
pORF_-_2897510	2897510	2898370	861	-	6	0	2	3	4	12	29	38	b2774	ygcW	2897510	2898295	inside	
pORF_-_2902769	2902769	2903440	672	-	6	3	4	6	9	23	31	43	b2777	ygcF	2902769	2903440	equal	
pORF_-_2903170	2903170	2903445	276	-	5	0	0	1	2	0	4	8						FP
pORF_-_2904665	2904665	2905963	1299	-	6	25	187	228	279	12837	13939	15477	b2779	eno	2904665	2905963	equal	
pORF_-_2906051	2906051	2907688	1638	-	6	22	50	70	93	999	1080	1180	b2780	pyrG	2906051	2907688	equal	
pORF_-_2907916	2907916	2908707	792	-	5	0	1	1	1	10	10	10	b2781	mazG	2907916	2908707	equal	
pORF_-_2908778	2908778	2909113	336	-	6	0	0	2	4	0	6	10	b2782	chpA	2908778	2909113	equal	
pORF_-_2909113	2909113	2909361	249	-	5	0	0	1	1	0	2	2	b2783	chpR	2909113	2909361	equal	
pORF_-_2909439	2909439	2911673	2235	-	4	0	0	8	16	0	22	43	b2784	relA	2909439	2911673	equal	
pORF_-_2911721	2911721	2913022	1302	-	6	1	1	1	2	0	0	2	b2785	rumA	2911721	2913022	equal	
pORF_-_2913537	2913537	2913800	264	-	4	0	1	1	1	2	2	2						FP
pORF_-_2915224	2915224	2915517	294	-	5	0	1	1	1	3	3	3						FP
pORF_-_2916067	2916067	2917431	1365	-	5	0	0	0	1	0	0	2	b2787	gudD	2916067	2917407	inside	
pORF_-_2917428	2917428	2918783	1356	-	4	0	1	2	3	2	13	65	b2788	gudX	2917428	2918768	inside	
pORF_-_2920557	2920557	2921006	450	-	4	0	0	0	2	0	0	4	b2790	yqcA	2920557	2921006	equal	
pORF_-_2921024	2921024	2921806	783	-	6	3	4	4	4	2	2	2	b2791	truC	2921024	2921806	equal	
pORF_-_2921806	2921806	2922135	330	-	5	0	1	2	4	3	6	10	b2792	yqcC	2921806	2922135	equal	
pORF_-_2922757	2922757	2923302	546	-	5	0	0	3	5	0	8	16	b2793	syd	2922757	2923302	equal	
pORF_-_2926637	2926637	2927107	471	-	6	0	1	1	1	2	2	2						FP
pORF_-_2929887	2929887	2931038	1152	-	4	3	4	5	11	2	5	27	b2799	fucO	2929887	2931038	equal	
pORF_-_2931368	2931368	2931547	180	-	6	0	1	1	1	3	3	3						FP
pORF_-_2938165	2938165	2939265	1101	-	5	0	1	6	9	3	17	25	b2806	ygdE	2938165	2939265	equal	
pORF_-_2939672	2939672	2940589	918	-	6	0	2	3	3	5	8	8	b2808	gcvA	2939672	2940589	equal	
pORF_-_2940940	2940940	2941170	231	-	5	0	0	1	2	0	2	5	b2809	ygdI	2940940	2941167	inside	
pORF_-_2943058	2943058	2943864	807	-	5	0	3	5	8	39	65	78	b2812	ygdL	2943058	2943864	equal	
pORF_-_2944103	2944103	2945482	1380	-	6	5	7	7	7	5	5	5	b2813	mltA	2944103	2945200	inside	
pORF_-_2946963	2946963	2947112	150	-	4	0	0	0	1	0	0	2						FP
pORF_-_2948073	2948073	2948279	207	-	4	0	0	0	1	0	0	2						FP
pORF_-_2948657	2948657	2950483	1827	-	6	0	0	1	1	0	3	3	b2819	recD	2948657	2950483	equal	
pORF_-_2950483	2950483	2954034	3552	-	5	0	0	1	3	0	2	6	b2820	recB	2950483	2954025	inside	
pORF_-_2954018	2954018	2956906	2889	-	6	0	1	9	12	2	22	31	b2821	ptrA	2954018	2956906	equal	
pORF_-_2954488	2954488	2954667	180	-	5	0	1	1	1	13	13	13						FP
pORF_-_2956627	2956627	2956797	171	-	5	0	1	1	1	2	2	2						FP
pORF_-_2957082	2957082	2960450	3369	-	4	0	0	1	4	0	4	12	b2822	recC	2957082	2960450	equal	
pORF_-_2962383	2962383	2963177	795	-	4	5	6	13	16	11	40	54	b2827	thyA	2962383	2963177	equal	
pORF_-_2963184	2963184	2964059	876	-	4	0	0	2	4	0	6	11	b2828	lgt	2963184	2964059	equal	
pORF_-_2964210	2964210	2966456	2247	-	4	2	5	12	18	9	28	41	b2829	ptsP	2964210	2966456	equal	
pORF_-_2970691	2970691	2971884	1194	-	5	0	1	1	1	2	2	2	b2835	lplT	2970691	2971884	equal	
pORF_-_2971877	2971877	2974036	2160	-	6	0	0	1	1	0	2	2	b2836	aas	2971877	2974036	equal	
pORF_-_2975659	2975659	2976921	1263	-	5	0	2	10	15	4	46	71	b2838	lysA	2975659	2976921	equal	
pORF_-_2977965	2977965	2978726	762	-	4	0	0	1	1	0	3	3	b2840	ygeA	2977965	2978657	inside	
pORF_-_2978786	2978786	2980333	1548	-	6	4	4	4	4	0	0	0	b2841	araE	2978786	2980204	inside	
pORF_-_2980519	2980519	2981280	762	-	5	1	1	2	3	0	2	6	b2842	kduD	2980519	2981280	equal	
pORF_-_2981100	2981100	2981270	171	-	4	0	1	1	1	2	2	2						FP
pORF_-_2982433	2982433	2983617	1185	-	5	0	3	4	4	22	24	24	b2844	yqeF	2982433	2983614	inside	

pORF_-_2996893	2996893	2996949	57	-	5	1	1	1	1	0	0	0							FP
pORF_-_3001020	3001020	3001184	165	-	4	0	1	1	1	20	20	20							FP
pORF_-_3002030	3002030	3003808	1779	-	6	0	0	0	4	0	0	17	b2869	ygeV	3002030	3003808	equal		
pORF_-_3009009	3009009	3009080	72	-	4	0	1	1	1	3	3	3							FP
pORF_-_3010636	3010636	3012261	1626	-	5	0	2	2	2	6	6	6	b2875	yqeB	3010636	3012261	equal		
pORF_-_3012309	3012309	3013079	771	-	4	0	1	1	1	2	2	2	b2876	yqcC	3012309	3013079	equal		
pORF_-_3018047	3018047	3018169	123	-	6	0	1	1	1	3	3	3							FP
pORF_-_3024788	3024788	3024856	69	-	6	0	0	1	1	0	2	2							FP
pORF_-_3027034	3027034	3028968	1935	-	5	3	3	3	3	0	0	0	b2887	ygfT	3027034	3028953	inside		
pORF_-_3029229	3029229	3029876	648	-	4	0	0	1	1	0	2	2							FP
pORF_-_3031679	3031679	3033196	1518	-	6	38	79	118	151	862	1143	1385	b2890	lysS	3031679	3033196	equal		
pORF_-_3033206	3033206	3034087	882	-	6	9	23	35	44	368	817	1248							
pORF_-_3034227	3034227	3034304	78	-	4	1	1	1	1	0	0	0							
pORF_-_3034395	3034395	3036128	1734	-	4	0	2	4	4	5	9	9	b2892	recJ	3034395	3036128	equal		
pORF_-_3036134	3036134	3036844	711	-	6	6	10	17	23	104	144	170	b2893	dsbC	3036134	3036844	equal		
pORF_-_3036869	3036869	3037765	897	-	6	0	0	1	2	0	3	5	b2894	xerD	3036869	3037765	equal		
pORF_-_3038826	3038826	3039092	267	-	4	0	1	1	2	4	4	6	b2897	ygfY	3038826	3039092	equal		
pORF_-_3041334	3041334	3041645	312	-	4	4	4	7	10	0	12	20	b2900	yqfB	3041334	3041645	equal		
pORF_-_3041918	3041918	3042334	417	-	6	0	0	1	1	0	2	2							FP
pORF_-_3043180	3043180	3043923	744	-	5	1	2	2	2	2	2	2	b2902	ygfF	3043180	3043923	equal		
pORF_-_3044190	3044190	3047063	2874	-	4	18	44	75	100	422	549	649	b2903	gcvP	3044190	3047063	equal		
pORF_-_3047182	3047182	3047574	393	-	5	1	3	6	9	69	89	122	b2904	gcvH	3047182	3047571	inside		
pORF_-_3047595	3047595	3048689	1095	-	4	9	24	35	43	345	398	441	b2905	gcvT	3047595	3048689	equal		
pORF_-_3049137	3049137	3050339	1203	-	4	0	0	2	3	0	4	6	b2906	visC	3049137	3050339	equal		
pORF_-_3050362	3050362	3051540	1179	-	5	0	0	4	7	0	14	25	b2907	ubiH	3050362	3051540	equal		
pORF_-_3051537	3051537	3053075	1539	-	4	7	29	40	52	143	199	266	b2908	pepP	3051537	3052862	inside		
pORF_-_3052888	3052888	3053472	585	-	5	2	4	7	10	10	22	36	b2909	ygfB	3052888	3053466	inside		
pORF_-_3055200	3055200	3056432	1233	-	4	15	74	103	134	3825	4137	4453	b2913	serA	3055200	3056432	equal		
pORF_-_3056688	3056688	3057419	732	-	4	6	21	29	38	561	668	814	b2914	rpiA	3056688	3057347	inside		
pORF_-_3064299	3064299	3065210	912	-	4	0	1	1	1	2	2	2	b2921	ygfI	3064299	3065195	inside		
pORF_-_3065362	3065362	3066102	741	-	5	9	26	36	47	460	516	624	b2922	yggE	3065362	3066102	equal		
pORF_-_3066969	3066969	3067829	861	-	4	4	5	13	20	2	69	118	b2924	mscS	3066969	3067829	equal		
pORF_-_3068187	3068187	3069350	1164	-	4	21	63	90	115	3078	3591	4169	b2925	fbaA	3068187	3069266	inside		
pORF_-_3069481	3069481	3070707	1227	-	5	33	131	176	230	9059	11404	14741	b2926	pgk	3069481	3070644	inside		
pORF_-_3070694	3070694	3071797	1104	-	6	5	8	9	11	15	17	21	b2927	epd	3070694	3071713	inside		
pORF_-_3071998	3071998	3072711	714	-	5	0	0	1	2	0	11	22	b2928	yggC	3071998	3072711	equal		
pORF_-_3074767	3074767	3075063	297	-	5	0	1	1	1	2	2	2							FP
pORF_-_3075493	3075493	3076881	1389	-	5	0	1	1	1	2	2	2	b2933	cmtA	3075493	3076881	equal		
pORF_-_3077666	3077666	3079687	2022	-	6	23	84	117	141	2112	2371	2658	b2935	tktA	3077666	3079657	inside		
pORF_-_3080899	3080899	3081819	921	-	5	10	21	31	41	318	365	407	b2937	speB	3080899	3081819	equal		
pORF_-_3081957	3081957	3083945	1989	-	4	12	27	47	62	205	331	413	b2938	speA	3081957	3083933	inside		
pORF_-_3086384	3086384	3086467	84	-	6	0	0	0	1	0	0	7							FP
pORF_-_3092122	3092122	3093177	1056	-	5	2	2	2	2	0	0	0	b2950	yggR	3092122	3093102	inside		
pORF_-_3097704	3097704	3098750	1047	-	4	0	1	2	2	2	4	4	b2957	ansB	3097704	3098750	equal		
pORF_-_3098926	3098926	3099645	720	-	5	4	12	16	23	70	84	106	b2958	yggN	3098926	3099645	equal		
pORF_-_3099829	3099829	3100185	357	-	5	3	3	6	10	0	47	109	b2959	yggL	3099829	3100155	inside		

pORF_-_3100155	3100155	3100874	720	-	4	0	5	11	15	109	131	150	b2960	trmI	3100155	3100874	equal	
pORF_-_3105042	3105042	3107237	2196	-	4	1	1	9	11	0	24	28	b2965	speC	3105042	3107177	inside	
pORF_-_3110076	3110076	3111071	996	-	4	0	0	0	1	0	0	3	b2970	yghF	3110115	3110942	inside	
pORF_-_3112572	3112572	3117152	4581	-	4	3	4	6	9	2	7	14	b4466	yghJ	3112572	3117134	inside	
pORF_-_3117619	3117619	3119301	1683	-	5	0	1	1	1	2	2	2	b2975	glcA	3117619	3119301	equal	
pORF_-_3119656	3119656	3121827	2172	-	5	1	14	24	59	116	148	322	b2976	glcB	3119656	3121827	equal	
pORF_-_3121849	3121849	3122271	423	-	5	0	2	6	10	18	27	58	b2977	glcG	3121849	3122253	inside	
pORF_-_3122695	3122695	3122856	162	-	5	0	1	1	1	2	2	2						FP
pORF_-_3123492	3123492	3124544	1053	-	4	0	0	0	4	0	0	8	b4468	glcE	3123492	3124544	equal	
pORF_-_3124544	3124544	3126043	1500	-	6	0	0	1	3	0	3	7	b2979	glcD	3124544	3126043	equal	
pORF_-_3129363	3129363	3130430	1068	-	4	1	1	1	1	0	0	0	b2983	yghQ	3129363	3130430	equal	
pORF_-_3134685	3134685	3136547	1863	-	4	6	6	21	36	0	53	121	b2988	gsp	3134685	3136544	inside	
pORF_-_3134702	3134702	3134929	228	-	6	0	0	1	1	0	2	2						FP
pORF_-_3139308	3139308	3141011	1704	-	4	0	0	1	3	0	4	9	b2994	hybC	3139308	3141011	equal	
pORF_-_3148840	3148840	3149265	426	-	5	0	0	4	5	0	11	14	b3005	exbD	3148840	3149265	equal	
pORF_-_3149272	3149272	3150006	735	-	5	3	6	8	10	87	91	96	b3006	exbB	3149272	3150006	equal	
pORF_-_3156949	3156949	3159168	2220	-	5	0	0	0	1	0	0	2	b4469	ygiQ	3156949	3159168	equal	
pORF_-_3159279	3159279	3160691	1413	-	4	2	4	8	12	7	16	28	b3017	ftsP	3159279	3160691	equal	
pORF_-_3160766	3160766	3161503	738	-	6	0	1	4	7	3	13	22	b3018	plsC	3160766	3161503	equal	
pORF_-_3161737	3161737	3163995	2259	-	5	4	15	27	37	166	242	305	b3019	parC	3161737	3163995	equal	
pORF_-_3164133	3164133	3165803	1671	-	4	9	9	9	9	0	0	0	b3020	ygiS	3164133	3165740	inside	
pORF_-_3165873	3165873	3166268	396	-	4	0	1	2	3	3	5	7	b3021	ygiT	3165873	3166268	equal	
pORF_-_3167306	3167306	3167755	450	-	6	3	9	13	19	125	147	208	b3024	ygiW	3167306	3167698	inside	
pORF_-_3171526	3171526	3173418	1893	-	5	3	4	8	10	2	14	23	b3030	parE	3171526	3173418	equal	
pORF_-_3173447	3173447	3174028	582	-	6	0	2	3	3	15	17	17	b3031	yqiA	3173447	3174028	equal	
pORF_-_3174028	3174028	3174855	828	-	5	0	1	2	3	2	5	7	b3032	cpdA	3174028	3174855	equal	
pORF_-_3175303	3175303	3175932	630	-	5	4	5	7	9	10	25	39	b3034	nudF	3175303	3175932	equal	
pORF_-_3181835	3181835	3182488	654	-	6	7	16	20	24	267	294	325	b3041	ribB	3181835	3182488	equal	
pORF_-_3189761	3189761	3189967	207	-	6	0	0	0	2	0	0	10	b3049	glgS	3189761	3189961	inside	
pORF_-_3193342	3193342	3194775	1434	-	5	5	24	36	52	280	329	392	b3052	rfaE	3193342	3194775	equal	
pORF_-_3194823	3194823	3197867	3045	-	4	1	2	9	12	4	30	41	b3053	glnE	3194823	3197663	inside	
pORF_-_3197686	3197686	3198987	1302	-	5	0	2	14	21	15	55	83	b3054	ygiF	3197686	3198987	equal	
pORF_-_3205991	3205991	3206101	111	-	6	0	1	1	1	4	4	4						FP
pORF_-_3207552	3207552	3208565	1014	-	4	0	2	4	6	13	17	21	b3064	ygjD	3207552	3208565	equal	
pORF_-_3212989	3212989	3213495	507	-	5	0	1	3	4	5	16	22	b3068	mug	3212989	3213495	equal	
pORF_-_3213749	3213749	3214513	765	-	6	3	8	12	15	110	123	134	b3070	yqjH	3213749	3214513	equal	
pORF_-_3214030	3214030	3214257	228	-	5	0	1	1	1	2	2	2						FP
pORF_-_3215100	3215100	3215378	279	-	4	0	1	1	1	2	2	2						FP
pORF_-_3215578	3215578	3217098	1521	-	5	0	8	13	14	195	216	219	b3072	aer	3215578	3217098	equal	
pORF_-_3219412	3219412	3219669	258	-	5	0	1	1	1	8	8	8						FP
pORF_-_3227864	3227864	3228247	384	-	6	0	0	1	1	0	2	2						FP
pORF_-_3231750	3231750	3232166	417	-	4	0	1	1	1	3	3	3	b3082	ygjM	3231750	3232166	equal	
pORF_-_3232761	3232761	3233927	1167	-	4	0	0	1	2	0	2	4	b3084	rlmG	3232761	3233897	inside	
pORF_-_3237319	3237319	3237546	228	-	5	0	1	1	1	3	3	3						FP
pORF_-_3239849	3239849	3241336	1488	-	6	0	1	1	1	2	2	2	b3091	uxaA	3239849	3241336	equal	
pORF_-_3241351	3241351	3242826	1476	-	5	0	1	3	7	3	8	22	b3092	uxaC	3241351	3242763	inside	

pORF_-_3243363	3243363	3244262	900	-	4	0	1	1	1	3	3	3							
pORF_-_3251340	3251340	3252236	897	-	4	0	6	9	12	42	49	58	b3105	yhaJ	3251340	3252236	equal		
pORF_-_3251701	3251701	3251955	255	-	5	0	1	1	1	4	4	4							FP
pORF_-_3253363	3253363	3254673	1311	-	5	0	0	1	1	0	2	2	b4470	yhaM	3253363	3254673	equal		
pORF_-_3256307	3256307	3257677	1371	-	6	5	5	5	5	0	0	0	b4471	tdcG	3256307	3257671	inside		
pORF_-_3257743	3257743	3258195	453	-	5	1	5	6	9	28	31	38	b3113	tdcF	3257743	3258132	inside		
pORF_-_3258146	3258146	3260440	2295	-	6	35	39	45	47	108	126	132	b3114	tdcE	3258146	3260440	equal		
pORF_-_3260474	3260474	3261694	1221	-	6	3	3	3	4	0	0	4	b3115	tdcD	3260474	3261682	inside		
pORF_-_3261708	3261708	3263039	1332	-	4	0	0	1	1	0	7	7	b3116	tdcC	3261708	3263039	equal		
pORF_-_3263061	3263061	3264050	990	-	4	1	2	2	2	19	19	19	b3117	tdcB	3263061	3264050	equal		
pORF_-_3264149	3264149	3265087	939	-	6	0	0	1	1	0	2	2	b3118	tdcA	3264149	3265087	equal		
pORF_-_3268647	3268647	3269873	1227	-	4	0	2	2	2	13	13	13	b3124	garK	3268647	3269792	inside		
pORF_-_3269889	3269889	3270788	900	-	4	0	0	3	5	0	11	24	b3125	garR	3269889	3270773	inside		
pORF_-_3275878	3275878	3276687	810	-	5	0	1	3	4	4	9	12	b3131	agaR	3275878	3276687	equal		
pORF_-_3280435	3280435	3280575	141	-	5	0	1	1	1	2	2	2							FP
pORF_-_3287931	3287931	3288509	579	-	4	0	0	0	1	0	0	3							FP
pORF_-_3288346	3288346	3288525	180	-	5	0	1	1	1	3	3	3							FP
pORF_-_3289094	3289094	3289204	111	-	6	0	0	1	2	0	7	14							FP
pORF_-_3290497	3290497	3291357	861	-	5	0	4	8	13	90	101	113	b3146	yraL	3290497	3291357	equal		
pORF_-_3295120	3295120	3296160	1041	-	5	0	0	2	2	0	4	4	b3151	yraQ	3295120	3296160	equal		
pORF_-_3296233	3296233	3296913	681	-	5	0	0	2	3	0	4	7	b3152	yraR	3296233	3296868	inside		
pORF_-_3297494	3297494	3297937	444	-	6	1	1	2	2	0	2	2	b3154	yhbP	3297494	3297937	equal		
pORF_-_3298277	3298277	3298780	504	-	6	0	6	9	12	147	155	165	b3156	yhbS	3298277	3298780	equal		
pORF_-_3301530	3301530	3301727	198	-	4	0	1	1	1	2	2	2							FP
pORF_-_3302274	3302274	3302432	159	-	4	0	1	1	1	6	6	6							FP
pORF_-_3303993	3303993	3305948	1956	-	4	22	59	73	74	875	942	945	b3162	deaD	3303993	3305882	inside		
pORF_-_3306062	3306062	3306946	885	-	6	1	1	3	4	0	7	11	b3163	nlpI	3306062	3306946	equal		
pORF_-_3307055	3307055	3309277	2223	-	6	32	118	149	178	5332	5651	5949	b3164	pnp	3307055	3309190	inside		
pORF_-_3309437	3309437	3309706	270	-	6	2	18	23	28	981	1068	1187	b3165	rpsO	3309437	3309706	equal		
pORF_-_3309855	3309855	3310799	945	-	4	2	3	6	7	2	10	12	b3166	truB	3309855	3310799	equal		
pORF_-_3310799	3310799	3311218	420	-	6	3	19	24	30	219	263	314	b3167	rbfA	3310799	3311200	inside		
pORF_-_3311364	3311364	3314036	2673	-	4	40	135	188	244	3248	3856	4422	b3168	infB	3311364	3314036	equal		
pORF_-_3314061	3314061	3315548	1488	-	4	22	80	109	139	3098	3270	3471	b3169	nusA	3314061	3315548	equal		
pORF_-_3315576	3315576	3316040	465	-	4	3	6	6	6	156	156	156	b3170	yhbC	3315576	3316034	inside		
pORF_-_3318010	3318010	3319668	1659	-	5	0	1	1	1	6	6	6	b3173	yhbX	3318010	3319635	inside		
pORF_-_3320195	3320195	3320575	381	-	6	0	0	2	4	0	14	26	b3175	secG	3320195	3320527	inside		
pORF_-_3320755	3320755	3322092	1338	-	5	17	43	60	76	839	911	995	b3176	glmM	3320755	3322092	equal		
pORF_-_3322085	3322085	3322999	915	-	6	1	9	14	16	48	60	65	b3177	folP	3322085	3322933	inside		
pORF_-_3323023	3323023	3324966	1944	-	5	15	56	80	106	1812	2078	2350	b3178	hflB	3323023	3324957	inside		
pORF_-_3325057	3325057	3325686	630	-	5	2	5	9	13	10	26	40	b3179	rrmJ	3325057	3325686	equal		
pORF_-_3326261	3326261	3326737	477	-	6	11	26	34	42	377	433	479	b3181	greA	3326261	3326737	equal		
pORF_-_3328604	3328604	3329776	1173	-	6	6	25	33	39	511	533	554	b3183	obgE	3328604	3329776	equal		
pORF_-_3329792	3329792	3330757	966	-	6	0	0	1	2	0	3	5	b3184	yhbE	3329792	3330757	equal		
pORF_-_3330884	3330884	3331141	258	-	6	4	21	27	32	1422	1508	1596	b3185	rpmA	3330884	3331141	equal		
pORF_-_3331162	3331162	3331497	336	-	5	5	30	35	40	1403	2008	2323	b3186	rplU	3331162	3331473	inside		
pORF_-_3333257	3333257	3334516	1260	-	6	6	23	34	40	535	637	700	b3189	murA	3333257	3334516	equal		

pORF_-_3334571	3334571	3334840	270	-	6	1	1	2	4	0	3	10	b3190	yrbA	3334571	3334825	inside	
pORF_-_3334985	3334985	3335374	390	-	6	3	6	8	10	103	113	123	b3191	yrbB	3334985	3335278	inside	
pORF_-_3335278	3335278	3335913	636	-	5	7	10	15	24	13	25	56	b3192	yrbC	3335278	3335913	equal	
pORF_-_3335932	3335932	3336498	567	-	5	4	7	14	18	41	90	112	b3193	yrbD	3335932	3336483	inside	
pORF_-_3336488	3336488	3337270	783	-	6	0	0	0	1	0	0	2	b3194	yrbE	3336488	3337270	equal	
pORF_-_3337278	3337278	3338087	810	-	4	0	4	8	13	62	89	113	b3195	yrbF	3337278	3338087	equal	
pORF_-_3341975	3341975	3342352	378	-	6	0	1	1	1	3	3	3						FP
pORF_-_3346887	3346887	3347090	204	-	4	0	0	0	1	0	0	2						FP
pORF_-_3347828	3347828	3348490	663	-	6	6	9	16	21	107	144	176	b3209	elbB	3347828	3348481	inside	
pORF_-_3348711	3348711	3351047	2337	-	4	1	8	15	19	71	88	104	b3210	arcB	3348711	3351047	equal	
pORF_-_3349676	3349676	3350074	399	-	6	0	0	1	1	0	7	7						FP
pORF_-_3363724	3363724	3364740	1017	-	5	0	0	46	46	0	158	158	b3218	insH	3363724	3364740	equal	
pORF_-_3367497	3367497	3368411	915	-	4	1	1	1	1	0	0	0	b3222	nanK	3367497	3368372	inside	
pORF_-_3368369	3368369	3369100	732	-	6	2	2	2	2	0	0	0	b3223	nanE	3368369	3369058	inside	
pORF_-_3369106	3369106	3370626	1521	-	5	0	0	1	3	0	6	12	b3224	nanT	3369106	3370596	inside	
pORF_-_3370705	3370705	3371598	894	-	5	7	8	11	14	6	12	18	b3225	nanA	3370705	3371598	equal	
pORF_-_3371720	3371720	3372511	792	-	6	0	2	7	9	6	19	24	b3226	nanR	3371720	3372511	equal	
pORF_-_3374301	3374301	3374798	498	-	4	4	6	9	12	10	16	23	b3228	sspB	3374301	3374798	equal	
pORF_-_3374804	3374804	3375442	639	-	6	8	19	33	45	284	380	449	b3229	sspA	3374804	3375442	equal	
pORF_-_3375837	3375837	3376229	393	-	4	10	52	62	70	4554	4713	4768	b3230	rpsI	3375837	3376229	equal	
pORF_-_3376245	3376245	3376748	504	-	4	11	57	69	81	2488	2592	2735	b3231	rplM	3376245	3376673	inside	
pORF_-_3376892	3376892	3378019	1128	-	6	0	3	7	10	7	18	27	b3232	yhcM	3376892	3378019	equal	
pORF_-_3378396	3378396	3378668	273	-	4	0	1	1	1	5	5	5						FP
pORF_-_3381352	3381352	3382356	1005	-	5	14	110	153	201	11308	13080	15185	b3236	mdh	3381352	3382290	inside	
pORF_-_3383879	3383879	3384151	273	-	6	0	2	2	2	6	6	6	b3239	yhcO	3383879	3384151	equal	
pORF_-_3388605	3388605	3390050	1446	-	4	4	10	20	29	54	97	144	b3244	tldD	3388605	3390050	equal	
pORF_-_3390480	3390480	3394280	3801	-	4	2	2	3	7	0	2	11	b4472	yhdP	3390480	3394280	equal	
pORF_-_3392987	3392987	3393304	318	-	6	0	1	1	1	6	6	6						FP
pORF_-_3394348	3394348	3395835	1488	-	5	0	5	15	20	18	48	64	b3247	rng	3394348	3395817	inside	
pORF_-_3395807	3395807	3396460	654	-	6	0	2	6	9	10	18	27	b3248	yhdE	3395807	3396400	inside	
pORF_-_3396897	3396897	3398000	1104	-	4	0	0	5	7	0	15	21	b3250	mreC	3396897	3398000	equal	
pORF_-_3398066	3398066	3399184	1119	-	6	16	63	77	94	2337	2449	2622	b3251	mreB	3398066	3399109	inside	
pORF_-_3399414	3399414	3401354	1941	-	4	0	0	0	1	0	0	2	b3252	csrD	3399414	3401354	equal	
pORF_-_3408635	3408635	3409171	537	-	6	0	0	1	1	0	3	3						FP
pORF_-_3415462	3415462	3415740	279	-	5	0	0	0	1	0	0	3						FP
pORF_-_3420106	3420106	3420621	516	-	5	0	0	1	1	0	14	14						FP
pORF_-_3428042	3428042	3428887	846	-	6	5	8	12	17	49	65	81	b3281	aroE	3428042	3428860	inside	
pORF_-_3428865	3428865	3429482	618	-	4	4	5	6	8	10	15	21	b3282	rimN	3428865	3429437	inside	
pORF_-_3429442	3429442	3429984	543	-	5	0	0	1	1	0	3	3	b3283	yrdD	3429442	3429984	equal	
pORF_-_3435022	3435022	3435246	225	-	5	0	1	1	1	2	2	2						FP
pORF_-_3436030	3436030	3436224	195	-	5	0	1	1	1	2	2	2						FP
pORF_-_3436282	3436282	3436347	66	-	5	0	1	1	1	5	5	5						FP
pORF_-_3437638	3437638	3438021	384	-	5	8	52	58	63	3439	3516	3580	b3294	rplQ	3437638	3438021	equal	
pORF_-_3438062	3438062	3439051	990	-	6	23	73	100	131	3826	5487	7396	b3295	rpoA	3438062	3439051	equal	
pORF_-_3439077	3439077	3439697	621	-	4	17	88	105	126	6585	9092	12030	b3296	rpsD	3439077	3439697	equal	
pORF_-_3439731	3439731	3440120	390	-	4	7	27	37	45	1745	1851	1925	b3297	rpsK	3439731	3440120	equal	

pORF_-_3440137	3440137	3440493	357	-	5	10	37	48	58	3524	3972	4520	b3298	rpsM	3440137	3440493	equal
pORF_-_3440640	3440640	3440756	117	-	4	0	2	2	2	9	9	9	b3299	rpmJ	3440640	3440756	equal
pORF_-_3440788	3440788	3442119	1332	-	5	5	5	9	14	0	37	90	b3300	secY	3440788	3442119	equal
pORF_-_3442127	3442127	3442561	435	-	6	9	63	72	83	5036	5164	5275	b3301	rplO	3442127	3442561	equal
pORF_-_3442565	3442565	3442744	180	-	6	4	28	33	37	1771	1805	1827	b3302	rpmD	3442565	3442744	equal
pORF_-_3442748	3442748	3443251	504	-	6	9	91	107	128	7314	7603	7874	b3303	rpsE	3442748	3443251	equal
pORF_-_3443266	3443266	3443619	354	-	5	6	46	56	64	4338	4533	4763	b3304	rplR	3443266	3443619	equal
pORF_-_3443629	3443629	3444162	534	-	5	12	65	82	101	6347	6648	6930	b3305	rplF	3443629	3444162	equal
pORF_-_3444175	3444175	3444567	393	-	5	8	68	79	88	3638	4093	4805	b3306	rpsH	3444175	3444567	equal
pORF_-_3444601	3444601	3444906	306	-	5	4	36	41	47	1728	1831	1902	b3307	rpsN	3444601	3444906	equal
pORF_-_3444921	3444921	3445460	540	-	4	17	102	127	151	5582	5852	6145	b3308	rplE	3444921	3445460	equal
pORF_-_3445475	3445475	3445789	315	-	6	9	56	69	79	2793	3094	3361	b3309	rplX	3445475	3445789	equal
pORF_-_3445800	3445800	3446171	372	-	4	6	50	57	65	3501	3590	3653	b3310	rplN	3445800	3446171	equal
pORF_-_3446336	3446336	3446590	255	-	6	3	32	37	41	1722	1820	1887	b3311	rpsQ	3446336	3446590	equal
pORF_-_3446590	3446590	3446781	192	-	5	5	40	44	52	3623	3738	3869	b3312	rpmC	3446590	3446781	equal
pORF_-_3446781	3446781	3447191	411	-	4	5	47	52	61	3861	3993	4142	b3313	rplP	3446781	3447191	equal
pORF_-_3447204	3447204	3447905	702	-	4	13	82	106	124	5229	5509	5826	b3314	rpsC	3447204	3447905	equal
pORF_-_3447923	3447923	3448255	333	-	6	11	62	73	84	4456	4658	4860	b3315	rplV	3447923	3448255	equal
pORF_-_3448270	3448270	3448548	279	-	5	8	45	56	64	2937	3048	3131	b3316	rpsS	3448270	3448548	equal
pORF_-_3448565	3448565	3449386	822	-	6	19	104	124	139	6247	6413	6573	b3317	rplB	3448565	3449386	equal
pORF_-_3449404	3449404	3449706	303	-	5	4	61	62	65	6117	7330	7918	b3318	rplW	3449404	3449706	equal
pORF_-_3449703	3449703	3450308	606	-	4	12	124	140	154	10367	10652	10934	b3319	rplD	3449703	3450308	equal
pORF_-_3450319	3450319	3450948	630	-	5	16	83	97	112	6742	7234	7813	b3320	rplC	3450319	3450948	equal
pORF_-_3450981	3450981	3451292	312	-	4	7	54	65	77	3479	3628	3755	b3321	rpsJ	3450981	3451292	equal
pORF_-_3451951	3451951	3453420	1470	-	5	1	1	1	1	0	0	0	b3323	gspA	3451951	3453420	equal
pORF_-_3455211	3455211	3455459	249	-	4	0	1	1	1	2	2	2					FP
pORF_-_3464271	3464271	3464747	477	-	4	3	20	27	39	465	497	578	b3336	bfr	3464271	3464747	equal
pORF_-_3468167	3468167	3469396	1230	-	6	36	435	569	728	43041	52687	63554	b3339	tufA	3468167	3469351	inside
pORF_-_3469422	3469422	3471536	2115	-	4	49	215	279	346	12786	17168	21911	b3340	fusA	3469422	3471536	equal
pORF_-_3471564	3471564	3472103	540	-	4	16	86	100	117	7322	7728	8207	b3341	rpsG	3471564	3472103	equal
pORF_-_3472200	3472200	3472634	435	-	4	4	31	43	52	1478	2240	3551	b3342	rpsL	3472200	3472574	inside
pORF_-_3472700	3472700	3472987	288	-	6	0	1	2	2	2	4	4	b3343	yheL	3472700	3472987	equal
pORF_-_3472995	3472995	3473354	360	-	4	0	0	1	1	0	2	2	b3344	yheM	3472995	3473354	equal
pORF_-_3473354	3473354	3473740	387	-	6	0	0	1	1	0	2	2	b3345	yheN	3473354	3473740	equal
pORF_-_3473740	3473740	3474474	735	-	5	3	9	14	18	32	57	77	b3346	yheO	3473740	3474462	inside
pORF_-_3474629	3474629	3475441	813	-	6	15	48	61	78	1254	1317	1410	b3347	fkpA	3474629	3475441	equal
pORF_-_3475874	3475874	3476119	246	-	6	0	1	1	1	31	31	31					FP
pORF_-_3475929	3475929	3476519	591	-	4	4	16	19	21	1202	1220	1231	b3349	slyD	3475929	3476519	equal
pORF_-_3483436	3483436	3483840	405	-	5	0	2	5	7	21	32	45	b3356	yhfA	3483436	3483840	equal
pORF_-_3486982	3486982	3488202	1221	-	5	0	23	41	58	939	1105	1276	b3359	argD	3486982	3488202	equal
pORF_-_3488288	3488288	3488851	564	-	6	0	0	1	1	0	2	2	b3360	pabA	3488288	3488851	equal
pORF_-_3488883	3488883	3489485	603	-	4	0	1	1	4	2	2	12	b3361	fic	3488883	3489485	equal
pORF_-_3489475	3489475	3489642	168	-	5	0	1	1	2	17	17	23	b3362	yhfG	3489475	3489642	equal
pORF_-_3489623	3489623	3489676	54	-	6	0	0	1	1	0	3	3					FP
pORF_-_3489747	3489747	3490319	573	-	4	8	18	27	37	151	226	322	b3363	ppiA	3489747	3490319	equal
pORF_-_3495021	3495021	3495386	366	-	4	0	1	1	1	2	2	2					FP

pORF_-_3504054	3504054	3505358	1305	-	4	0	1	1	2	3	3	5	b3377	yhfT	3504054	3505358	equal	
pORF_-_3510656	3510656	3511660	1005	-	6	16	46	63	80	1025	1170	1299	b3384	trpS	3510656	3511660	equal	
pORF_-_3511653	3511653	3512411	759	-	4	0	8	14	21	218	247	281	b3385	gph	3511653	3512411	equal	
pORF_-_3512404	3512404	3513081	678	-	5	4	17	27	34	487	551	612	b3386	rpe	3512404	3513081	equal	
pORF_-_3513099	3513099	3513935	837	-	4	0	0	2	2	0	7	7	b3387	dam	3513099	3513935	equal	
pORF_-_3514042	3514042	3515328	1287	-	5	10	14	21	38	43	92	177	b3388	damX	3514042	3515328	equal	
pORF_-_3515076	3515076	3515228	153	-	4	0	1	1	1	2	2	2						FP
pORF_-_3515420	3515420	3516508	1089	-	6	1	9	17	27	44	104	167	b3389	aroB	3515420	3516508	equal	
pORF_-_3516565	3516565	3517287	723	-	5	11	24	32	40	539	609	644	b3390	aroK	3516565	3517086	inside	
pORF_-_3523611	3523611	3524171	561	-	4	2	6	11	15	16	27	37	b3397	nudE	3523611	3524171	equal	
pORF_-_3525918	3525918	3526169	252	-	4	1	1	1	1	0	0	0						FP
pORF_-_3528737	3528737	3530461	1725	-	6	0	0	0	1	0	0	2	b3402	yhgE	3528737	3530461	equal	
pORF_-_3532538	3532538	3533890	1353	-	6	0	0	2	4	0	29	40	b3404	envZ	3532538	3533890	equal	
pORF_-_3533887	3533887	3534621	735	-	5	5	20	26	36	211	230	262	b3405	ompR	3533887	3534606	inside	
pORF_-_3542096	3542096	3542866	771	-	6	0	1	2	5	2	4	12	b3412	bioH	3542096	3542866	equal	
pORF_-_3546008	3546008	3548092	2085	-	6	2	2	3	5	0	3	9	b3416	malQ	3546008	3548092	equal	
pORF_-_3548102	3548102	3550495	2394	-	6	23	25	50	70	27	132	220	b3417	malP	3548102	3550495	equal	
pORF_-_3551125	3551125	3551409	285	-	5	0	0	1	1	0	4	4						FP
pORF_-_3552779	3552779	3552946	168	-	6	0	1	1	1	2	2	2						FP
pORF_-_3557870	3557870	3558628	759	-	6	0	4	10	13	22	37	44	b3423	glpR	3557870	3558628	equal	
pORF_-_3558645	3558645	3559475	831	-	4	2	2	2	2	0	0	0	b3424	glpG	3558645	3559475	equal	
pORF_-_3559520	3559520	3559870	351	-	6	0	1	1	1	6	6	6	b3425	glpE	3559520	3559846	inside	
pORF_-_3562157	3562157	3564604	2448	-	6	3	3	17	29	0	40	80	b3428	glgP	3562157	3564604	equal	
pORF_-_3564264	3564264	3564485	222	-	4	0	1	1	1	2	2	2						FP
pORF_-_3564623	3564623	3566056	1434	-	6	2	7	15	26	34	63	105	b3429	glgA	3564623	3566056	equal	
pORF_-_3566056	3566056	3567387	1332	-	5	0	8	20	37	44	91	145	b3430	glgC	3566056	3567351	inside	
pORF_-_3567369	3567369	3569342	1974	-	4	0	0	1	7	0	4	28	b3431	glgX	3567369	3569342	equal	
pORF_-_3569339	3569339	3571525	2187	-	6	1	2	17	31	2	48	95	b3432	glgB	3569339	3571525	equal	
pORF_-_3571798	3571798	3573024	1227	-	5	17	67	99	136	2711	3431	4413	b3433	asd	3571798	3572901	inside	
pORF_-_3575088	3575088	3575636	549	-	4	0	0	1	2	0	3	6	b3437	gntK	3575088	3575615	inside	
pORF_-_3575754	3575754	3576749	996	-	4	3	6	8	10	27	33	42	b3438	gntR	3575754	3576749	equal	
pORF_-_3576973	3576973	3577668	696	-	5	0	0	1	5	0	2	18	b3439	yhhW	3576973	3577668	equal	
pORF_-_3577791	3577791	3578828	1038	-	4	10	18	22	28	147	161	180	b3440	yhhX	3577791	3578828	equal	
pORF_-_3580347	3580347	3580463	117	-	4	0	1	1	1	6	6	6						FP
pORF_-_3583104	3583104	3584873	1770	-	4	0	18	18	18	258	258	258	b3447	ggt	3583104	3584846	inside	
pORF_-_3585393	3585393	3586136	744	-	4	0	0	0	5	0	0	15	b3449	ugpQ	3585393	3586136	equal	
pORF_-_3586133	3586133	3587242	1110	-	6	0	0	0	1	0	0	3	b3450	ugpC	3586133	3587203	inside	
pORF_-_3589032	3589032	3590348	1317	-	4	1	7	12	33	19	32	144	b3453	ugpB	3589032	3590348	equal	
pORF_-_3590747	3590747	3591472	726	-	6	0	8	14	21	75	104	133	b3454	livF	3590747	3591460	inside	
pORF_-_3591462	3591462	3592229	768	-	4	0	7	16	20	73	116	140	b3455	livG	3591462	3592229	equal	
pORF_-_3592226	3592226	3593503	1278	-	6	0	0	1	2	0	3	5	b3456	livM	3592226	3593503	equal	
pORF_-_3592744	3592744	3592932	189	-	5	0	0	0	1	0	0	3						FP
pORF_-_3594474	3594474	3595637	1164	-	4	6	46	76	109	2911	3322	3667	b3458	livK	3594474	3595583	inside	
pORF_-_3596578	3596578	3597738	1161	-	5	4	80	109	149	6655	7567	8820	b3460	livJ	3596578	3597681	inside	
pORF_-_3597952	3597952	3598806	855	-	5	1	1	2	2	0	2	2	b3461	rpoH	3597952	3598806	equal	
pORF_-_3599051	3599051	3600136	1086	-	6	0	0	1	3	0	7	17	b3462	ftsX	3599051	3600109	inside	

pORF_-_3600102	3600102	3600770	669	-	4	2	4	8	15	56	76	103	b3463	ftsE	3600102	3600770	equal	
pORF_-_3600773	3600773	3602266	1494	-	6	12	32	44	54	299	369	439	b3464	ftsY	3600773	3602266	equal	
pORF_-_3603274	3603274	3603633	360	-	5	0	0	2	5	0	4	10	b3467	yhhM	3603274	3603633	equal	
pORF_-_3606774	3606774	3607019	246	-	4	0	0	2	3	0	5	7	b3470	sirA	3606774	3607019	equal	
pORF_-_3609968	3609968	3610300	333	-	6	0	1	1	1	2	2	2						FP
pORF_-_3618839	3618839	3618937	99	-	6	0	2	2	2	4	4	4						FP
pORF_-_3619741	3619741	3620160	420	-	5	0	3	3	3	6	6	6						FP
pORF_-_3624826	3624826	3627561	2736	-	5	2	2	6	8	0	10	15	b3486	rbbA	3624826	3627561	equal	
pORF_-_3627558	3627558	3628625	1068	-	4	1	19	28	39	209	234	274	b3487	yhiI	3627558	3628625	equal	
pORF_-_3628991	3628991	3630613	1623	-	6	0	0	0	1	0	0	2	b3488	yhiJ	3628991	3630613	equal	
pORF_-_3634231	3634231	3635433	1203	-	5	2	2	3	3	0	2	2	b3492	yhiN	3634231	3635433	equal	
pORF_-_3640403	3640403	3641260	858	-	6	0	2	2	2	9	9	9	b3497	yhiQ	3640403	3641155	inside	
pORF_-_3641163	3641163	3643244	2082	-	4	12	33	64	91	336	477	604	b3498	prlC	3641163	3643205	inside	
pORF_-_3650205	3650205	3651221	1017	-	4	0	0	46	46	0	158	158	b3505	insH	3650205	3651221	equal	
pORF_-_3653989	3653989	3654327	339	-	5	0	9	12	19	162	206	478	b3509	hdeB	3653989	3654315	inside	
pORF_-_3654431	3654431	3654763	333	-	6	0	3	8	15	13	131	434	b3510	hdeA	3654431	3654763	equal	
pORF_-_3657555	3657555	3657905	351	-	4	0	1	1	1	3	3	3						FP
pORF_-_3663009	3663009	3663833	825	-	4	0	1	1	1	2	2	2	b3516	gadX	3663009	3663833	equal	
pORF_-_3664203	3664203	3665666	1464	-	4	15	37	71	120	216	398	2058	b3517	gadA	3664203	3665603	inside	
pORF_-_3665814	3665814	3667211	1398	-	4	0	0	1	1	0	2	2	b3518	yhjA	3665814	3667211	equal	
pORF_-_3668095	3668095	3668358	264	-	5	0	1	1	1	2	2	2						FP
pORF_-_3674313	3674313	3676388	2076	-	4	0	2	2	5	5	5	14	b3524	yhjG	3674313	3676388	equal	
pORF_-_3678467	3678467	3679963	1497	-	6	8	10	12	19	11	17	38	b3527	yhjJ	3678467	3679963	equal	
pORF_-_3680184	3680184	3681470	1287	-	4	0	0	0	1	0	0	7	b3528	dctA	3680184	3681470	equal	
pORF_-_3681653	3681653	3683641	1989	-	6	0	1	1	2	2	2	5	b3529	yhjK	3681653	3683608	inside	
pORF_-_3699887	3699887	3700891	1005	-	6	1	9	17	26	67	92	123	b3540	dppF	3699887	3700891	equal	
pORF_-_3700888	3700888	3701871	984	-	5	1	8	15	21	39	56	73	b3541	dppD	3700888	3701871	equal	
pORF_-_3701882	3701882	3702784	903	-	6	0	0	1	1	0	2	2	b3542	dppC	3701882	3702784	equal	
pORF_-_3702794	3702794	3703813	1020	-	6	0	0	0	1	0	0	3	b3543	dppB	3702794	3703813	equal	
pORF_-_3704121	3704121	3705728	1608	-	4	12	133	170	207	6671	6999	7373	b3544	dppA	3704121	3705728	equal	
pORF_-_3706807	3706807	3708531	1725	-	5	0	0	0	1	0	0	3	b3546	eptB	3706807	3708498	inside	
pORF_-_3710696	3710696	3710896	201	-	6	0	1	1	1	2	2	2						FP
pORF_-_3712084	3712084	3714417	2334	-	5	2	2	2	5	0	0	6	b3551	bisC	3712084	3714417	equal	
pORF_-_3716357	3716357	3717187	831	-	6	4	7	16	27	16	69	140	b3554	yiaF	3716357	3717067	inside	
pORF_-_3720351	3720351	3722420	2070	-	4	34	101	143	184	2570	2920	3369	b3559	glyS	3720351	3722420	equal	
pORF_-_3722430	3722430	3723341	912	-	4	7	16	26	33	94	173	222	b3560	glyQ	3722430	3723341	equal	
pORF_-_3725940	3725940	3727394	1455	-	4	0	1	1	4	5	5	11	b3564	xylB	3725940	3727394	equal	
pORF_-_3727466	3727466	3728800	1335	-	6	0	0	0	1	0	0	2	b3565	xylA	3727466	3728788	inside	
pORF_-_3739707	3739707	3740555	849	-	4	0	0	2	4	0	5	9	b3574	yiaJ	3739707	3740555	equal	
pORF_-_3749151	3749151	3749891	741	-	4	1	1	1	1	0	0	0	b3584	yiaT	3749151	3749891	equal	
pORF_-_3752996	3752996	3754672	1677	-	6	0	2	2	24	18	18	151	b3588	aldB	3752996	3754534	inside	
pORF_-_3754699	3754699	3755850	1152	-	5	2	2	2	2	0	0	0	b3589	yiaY	3754699	3755850	equal	
pORF_-_3756040	3756040	3757884	1845	-	5	1	10	21	27	98	160	186	b3590	selB	3756040	3757884	equal	
pORF_-_3757881	3757881	3759272	1392	-	4	0	1	7	14	2	25	54	b3591	selA	3757881	3759272	equal	
pORF_-_3759370	3759370	3759978	609	-	5	3	6	7	8	26	28	31	b3592	yibF	3759370	3759978	equal	
pORF_-_3761830	3761830	3761928	99	-	5	0	2	2	2	4	4	4						FP



pORF_-_3762732	3762732	3763151	420	-	4	0	3	3	3	6	6	6								FP
pORF_-_3770498	3770498	3770881	384	-	6	0	1	1	1	2	2	2								FP
pORF_-_3774194	3774194	3774403	210	-	6	0	0	0	2	0	0	9	b4554	yibT	3774194	3774403	equal			
pORF_-_3775350	3775350	3775772	423	-	4	0	1	1	1	2	2	2								FP
pORF_-_3777285	3777285	3777656	372	-	4	0	1	1	1	3	3	3								FP
pORF_-_3779764	3779764	3780585	822	-	5	4	7	16	22	9	49	76	b3607	cysE	3779764	3780585	equal			
pORF_-_3780665	3780665	3781684	1020	-	6	1	3	13	22	4	51	108	b3608	gpsA	3780665	3781684	equal			
pORF_-_3781684	3781684	3782151	468	-	5	6	13	20	23	415	457	509	b3609	secB	3781684	3782151	equal			
pORF_-_3782214	3782214	3782465	252	-	4	2	14	19	21	84	106	111	b3610	grxC	3782214	3782465	equal			
pORF_-_3782607	3782607	3783050	444	-	4	6	10	16	23	30	66	116	b3611	yibN	3782607	3783038	inside			
pORF_-_3787070	3787070	3788104	1035	-	6	0	1	1	1	2	2	2	b3615	yibD	3787070	3788104	equal			
pORF_-_3788343	3788343	3789368	1026	-	4	5	5	10	12	0	13	22	b3616	tdh	3788343	3789368	equal			
pORF_-_3789378	3789378	3790574	1197	-	4	11	13	17	24	5	16	40	b3617	kbl	3789378	3790574	equal			
pORF_-_3796262	3796262	3797335	1074	-	6	0	0	1	3	0	5	11	b3623	waaU	3796262	3797335	equal			
pORF_-_3798290	3798290	3798988	699	-	6	0	0	4	5	0	16	18	b3625	rfaY	3798290	3798988	equal			
pORF_-_3799006	3799006	3800022	1017	-	5	0	0	0	1	0	0	2	b3626	rfaJ	3799006	3800022	equal			
pORF_-_3800062	3800062	3801081	1020	-	5	0	0	0	1	0	0	3	b3627	rfaI	3800062	3801081	equal			
pORF_-_3801081	3801081	3802190	1110	-	4	0	0	1	2	0	2	4	b3628	rfaB	3801081	3802190	equal			
pORF_-_3802204	3802204	3803139	936	-	5	0	1	1	1	2	2	2	b3629	rfaS	3802204	3803139	equal			
pORF_-_3805087	3805087	3806157	1071	-	5	0	0	2	3	0	6	9	b3632	rfaQ	3805087	3806121	inside			
pORF_-_3808366	3808366	3809175	810	-	5	0	0	1	1	0	2	2	b3635	mutM	3808366	3809175	equal			
pORF_-_3809273	3809273	3809440	168	-	6	3	18	22	28	974	1023	1144	b3636	rpmG	3809273	3809440	equal			
pORF_-_3809461	3809461	3809697	237	-	5	8	37	41	47	2021	2044	2067	b3637	rpmB	3809461	3809697	equal			
pORF_-_3813150	3813150	3813806	657	-	4	6	8	13	16	6	26	42	b3642	pyrE	3813150	3813791	inside			
pORF_-_3813886	3813886	3814596	711	-	5	4	6	6	6	4	4	4	b3643	rph	3813886	3814572	inside			
pORF_-_3820939	3820939	3822828	1890	-	5	0	1	1	1	2	2	2								FP
pORF_-_3825483	3825483	3826688	1206	-	4	0	0	1	1	0	4	4	b3653	gltS	3825483	3826688	equal			
pORF_-_3835828	3835828	3835914	87	-	5	0	1	1	1	3	3	3								FP
pORF_-_3837198	3837198	3838016	819	-	4	4	18	23	33	248	263	316	b3661	nlpA	3837198	3838016	equal			
pORF_-_3848159	3848159	3848749	591	-	6	0	3	5	6	11	15	17	b3669	uhpA	3848159	3848749	equal			
pORF_-_3848825	3848825	3849115	291	-	6	0	7	11	17	169	200	249	b3670	ilvN	3848825	3849115	equal			
pORF_-_3849119	3849119	3850807	1689	-	6	0	23	52	77	485	864	1164	b3671	ilvB	3849119	3850807	equal			
pORF_-_3856424	3856424	3858139	1716	-	6	0	2	2	2	5	5	5	b3679	yidK	3856424	3858139	equal			
pORF_-_3864492	3864492	3864959	468	-	4	9	9	19	19	0	72	72	b3686	ibpB	3864492	3864920	inside			
pORF_-_3865032	3865032	3865451	420	-	4	8	12	22	26	105	1011	1228	b3687	ibpA	3865032	3865445	inside			
pORF_-_3866085	3866085	3867335	1251	-	4	0	0	5	7	0	12	18	b3689	yidR	3866085	3867299	inside			
pORF_-_3869873	3869873	3871021	1149	-	6	0	0	0	1	0	0	3	b4478	dgoD	3869873	3871021	equal			
pORF_-_3871810	3871810	3871980	171	-	5	0	1	1	1	4	4	4								FP
pORF_-_3872494	3872494	3873183	690	-	5	0	0	1	2	0	16	34	b4479	dgoR	3872494	3873183	equal			
pORF_-_3874163	3874163	3874975	813	-	6	5	14	21	23	109	125	131	b3697	yidA	3874163	3874975	equal			
pORF_-_3874519	3874519	3874740	222	-	5	0	1	1	1	3	3	3								FP
pORF_-_3875090	3875090	3875497	408	-	6	0	0	2	4	0	7	18	b3698	yidB	3875090	3875488	inside			
pORF_-_3875728	3875728	3878145	2418	-	5	19	48	78	105	524	718	907	b3699	gyrB	3875728	3878142	inside			
pORF_-_3878171	3878171	3879244	1074	-	6	0	0	1	1	0	2	2	b3700	recF	3878171	3879244	equal			
pORF_-_3879244	3879244	3880344	1101	-	5	6	15	26	34	23	59	87	b3701	dnaN	3879244	3880344	equal			
pORF_-_3880349	3880349	3881764	1416	-	6	0	4	10	12	12	29	35	b3702	dnaA	3880349	3881752	inside			

pORF_-_3887823	3887823	3888017	195	-	4	0	1	1	1	3	3	3							FP
pORF_-_3888993	3888993	3889166	174	-	4	0	1	1	1	23	23	23							FP
pORF_-_3893295	3893295	3894632	1338	-	4	0	1	1	1	2	2	2	b3714	yieG	3893295	3894632	equal		
pORF_-_3900312	3900312	3901724	1413	-	4	2	2	2	2	0	0	0	b3721	bglB	3900312	3901724	equal		
pORF_-_3903754	3903754	3904614	861	-	5	0	1	1	1	2	2	2	b3723	bglG	3903754	3904590	inside		
pORF_-_3904876	3904876	3905619	744	-	5	0	0	7	15	0	34	82	b3724	phoU	3904876	3905601	inside		
pORF_-_3905616	3905616	3906389	774	-	4	0	1	6	10	5	19	31	b3725	pstB	3905616	3906389	equal		
pORF_-_3906572	3906572	3907462	891	-	6	0	1	1	1	7	7	7	b3726	pstA	3906572	3907462	equal		
pORF_-_3907462	3907462	3908421	960	-	5	0	1	3	4	8	13	15	b3727	pstC	3907462	3908421	equal		
pORF_-_3908508	3908508	3909548	1041	-	4	9	13	16	25	111	118	146	b3728	pstS	3908508	3909548	equal		
pORF_-_3909862	3909862	3911691	1830	-	5	24	46	76	105	308	654	948	b3729	glmS	3909862	3911691	equal		
pORF_-_3911853	3911853	3913223	1371	-	4	9	25	39	48	216	267	311	b3730	glmU	3911853	3913223	equal		
pORF_-_3913576	3913576	3913995	420	-	5	4	17	22	29	594	740	899	b3731	atpC	3913576	3913995	equal		
pORF_-_3914016	3914016	3915398	1383	-	4	26	130	170	217	10125	11225	12546	b3732	atpD	3914016	3915398	equal		
pORF_-_3915425	3915425	3916288	864	-	6	8	42	63	81	1822	2017	2181	b3733	atpG	3915425	3916288	equal		
pORF_-_3916339	3916339	3917880	1542	-	5	19	109	140	170	5292	5748	6212	b3734	atpA	3916339	3917880	equal		
pORF_-_3917893	3917893	3918426	534	-	5	6	26	34	44	1592	1660	1715	b3735	atpH	3917893	3918426	equal		
pORF_-_3918441	3918441	3918911	471	-	4	5	44	59	76	1622	1752	1907	b3736	atpF	3918441	3918911	equal		
pORF_-_3918973	3918973	3919212	240	-	5	1	1	1	1	0	0	0	b3737	atpE	3918973	3919212	equal		
pORF_-_3919259	3919259	3920074	816	-	6	0	2	3	4	17	27	44	b3738	atpB	3919259	3920074	equal		
pORF_-_3920652	3920652	3920696	45	-	4	1	1	1	1	0	0	0							FP
pORF_-_3921080	3921080	3921703	624	-	6	2	3	5	7	2	9	16	b3740	gidB	3921080	3921703	equal		
pORF_-_3921767	3921767	3923656	1890	-	6	4	14	25	28	128	153	160	b3741	mnmG	3921767	3923656	equal		
pORF_-_3924035	3924035	3924478	444	-	6	2	3	6	8	32	55	69	b3742	mioC	3924035	3924478	equal		
pORF_-_3924568	3924568	3925026	459	-	5	0	0	1	1	0	3	3	b3743	asnC	3924568	3925026	equal		
pORF_-_3925850	3925850	3926287	438	-	6	0	1	1	1	6	6	6							FP
pORF_-_3926175	3926175	3927626	1452	-	4	1	1	1	1	0	0	0	b3745	viaA	3926175	3927626	equal		
pORF_-_3927620	3927620	3929140	1521	-	6	0	1	5	9	2	12	25	b3746	ravA	3927620	3929116	inside		
pORF_-_3938658	3938658	3939350	693	-	4	2	5	8	10	8	17	24	b3755	yieP	3938658	3939350	equal		
pORF_-_3945151	3945151	3945990	840	-	5	0	0	1	2	0	2	6	b4480	hdfR	3945151	3945990	equal		
pORF_-_3957160	3957160	3957504	345	-	5	1	1	1	1	0	0	0							FP
pORF_-_3957555	3957555	3957836	282	-	4	0	6	11	13	58	70	76	b3775	ppiC	3957555	3957836	equal		
pORF_-_3960768	3960768	3962261	1494	-	4	0	0	3	4	0	6	8	b3779	gpp	3960768	3962252	inside		
pORF_-_3962388	3962388	3963653	1266	-	4	6	17	30	42	149	227	294	b3780	rhIB	3962388	3963653	equal		
pORF_-_3964455	3964455	3964694	240	-	4	0	0	1	2	0	9	18							FP
pORF_-_3967422	3967422	3967526	105	-	4	0	1	1	1	2	2	2							FP
pORF_-_3968729	3968729	3968938	210	-	6	0	1	1	1	2	2	2							FP
pORF_-_3973316	3973316	3973702	387	-	6	0	1	1	1	2	2	2							FP
pORF_-_3975922	3975922	3976134	213	-	5	0	1	1	1	12	12	12							FP
pORF_-_3975929	3975929	3976171	243	-	6	0	1	1	1	2	2	2							FP
pORF_-_3980734	3980734	3980982	249	-	5	0	1	1	1	2	2	2							FP
pORF_-_3984709	3984709	3985905	1197	-	5	0	8	17	26	89	112	142	b3802	hemY	3984709	3985905	equal		
pORF_-_3985908	3985908	3987089	1182	-	4	0	17	27	39	174	217	273	b3803	hemX	3985908	3987089	equal		
pORF_-_3987111	3987111	3987851	741	-	4	0	0	0	1	0	0	2	b3804	hemD	3987111	3987851	equal		
pORF_-_3987848	3987848	3988810	963	-	6	3	11	16	24	61	78	111	b3805	hemC	3987848	3988789	inside		
pORF_-_3991762	3991762	3992082	321	-	5	2	4	6	7	5	9	13	b3807	cyaY	3991762	3992082	equal		

pORF_-_3994402	3994402	3994590	189	-	5	0	1	1	1	15	15	15					FP
pORF_-_3994547	3994547	3995029	483	-	6	0	1	1	1	2	2	2					FP
pORF_-_3995649	3995649	3996311	663	-	4	0	1	1	1	3	3	3					FP
pORF_-_3997561	3997561	3997623	63	-	5	0	0	1	1	0	2	2					FP
pORF_-_4002253	4002253	4002738	486	-	5	0	1	3	5	79	100	110	b3820	yigI	4002253	4002720	inside
pORF_-_4004598	4004598	4005020	423	-	4	1	1	1	1	0	0	0					FP
pORF_-_4008280	4008280	4008612	333	-	5	0	1	1	1	2	2	2					FP
pORF_-_4008537	4008537	4008740	204	-	4	0	1	1	1	3	3	3					FP
pORF_-_4009886	4009886	4010839	954	-	6	0	1	7	7	2	24	24	b3828	metR	4009886	4010839	equal
pORF_-_4013377	4013377	4014258	882	-	5	0	6	11	18	60	91	125	b3830	ysgA	4013377	4014192	inside
pORF_-_4022356	4022356	4022844	489	-	5	0	0	2	5	0	10	23	b3842	rfaH	4022356	4022844	equal
pORF_-_4025632	4025632	4026795	1164	-	5	0	3	3	13	10	10	53	b3845	fadA	4025632	4026795	equal
pORF_-_4026805	4026805	4029120	2316	-	5	0	4	8	28	8	18	93	b3846	fadB	4026805	4028994	inside
pORF_-_4027149	4027149	4027403	255	-	4	0	1	1	1	2	2	2					FP
pORF_-_4039438	4039438	4040022	585	-	5	0	0	2	5	0	8	18	b3857	mobA	4039438	4040022	equal
pORF_-_4043693	4043693	4044649	957	-	6	0	1	1	1	2	2	2	b3862	yihG	4043693	4044625	inside
pORF_-_4045223	4045223	4045702	480	-	6	0	1	1	1	2	2	2					FP
pORF_-_4048156	4048156	4048788	633	-	5	5	17	22	27	205	227	248	b3865	yihA	4048156	4048788	equal
pORF_-_4051892	4051892	4053361	1470	-	6	0	2	6	9	5	17	30	b3868	glnG	4051892	4053301	inside
pORF_-_4053313	4053313	4054362	1050	-	5	1	1	3	4	0	5	8	b3869	glnL	4053313	4054362	equal
pORF_-_4054648	4054648	4056057	1410	-	5	24	71	112	151	2522	3622	4840	b3870	glnA	4054648	4056057	equal
pORF_-_4058481	4058481	4058645	165	-	4	0	1	1	1	3	3	3					FP
pORF_-_4065263	4065263	4067299	2037	-	6	0	1	1	1	90	90	90	b3878	yihQ	4065263	4067299	equal
pORF_-_4072456	4072456	4072647	192	-	5	0	0	1	1	0	4	4					FP
pORF_-_4073780	4073780	4074022	243	-	6	0	1	1	1	2	2	2					FP
pORF_-_4078322	4078322	4079251	930	-	6	3	8	10	10	128	143	143	b3891	fdhE	4078322	4079251	equal
pORF_-_4079248	4079248	4079883	636	-	5	1	1	1	1	0	0	0	b3892	fdoI	4079248	4079883	equal
pORF_-_4079880	4079880	4080782	903	-	4	3	4	5	6	2	7	9	b3893	fdoH	4079880	4080782	equal
pORF_-_4080795	4080795	4083209	2415	-	4	18	20	21	23	5	8	12	b3894	fdoG	4080795	4083845	contain
pORF_-_4083258	4083258	4083845	588	-	4	4	4	5	6	0	2	4					
pORF_-_4097514	4097514	4098548	1035	-	4	0	2	2	2	23	23	23	b3907	rhaT	4097514	4098548	equal
pORF_-_4100087	4100087	4100653	567	-	6	0	1	1	1	4	4	4					FP
pORF_-_4101625	4101625	4102998	1374	-	5	0	0	3	4	0	12	14	b3911	cpxA	4101625	4102998	equal
pORF_-_4102995	4102995	4103693	699	-	4	6	11	20	27	59	108	148	b3912	cpXR	4102995	4103693	equal
pORF_-_4108238	4108238	4108570	333	-	6	0	1	1	1	2	2	2					FP
pORF_-_4108763	4108763	4109530	768	-	6	12	42	61	77	1706	2079	2452	b3919	tpiA	4108763	4109530	equal
pORF_-_4111749	4111749	4112495	747	-	4	2	3	7	11	5	17	27	b3924	fpr	4111749	4112495	equal
pORF_-_4112592	4112592	4113731	1140	-	4	0	5	9	11	18	28	35	b3925	glpX	4112592	4113602	inside
pORF_-_4113737	4113737	4115350	1614	-	6	22	78	92	111	1945	1981	2078	b3926	glpK	4113737	4115245	inside
pORF_-_4116868	4116868	4117353	486	-	5	3	11	19	27	55	129	205	b3929	rraA	4116868	4117353	equal
pORF_-_4118439	4118439	4119770	1332	-	4	14	50	73	99	996	1114	1260	b3931	hslU	4118439	4119770	equal
pORF_-_4119780	4119780	4120310	531	-	4	2	13	14	15	434	444	460	b3932	hslV	4119780	4120310	equal
pORF_-_4120403	4120403	4121362	960	-	6	0	5	10	16	228	241	260	b3933	ftsN	4120403	4121362	equal
pORF_-_4121454	4121454	4122485	1032	-	4	0	0	0	1	0	0	2	b3934	cytR	4121454	4122479	inside
pORF_-_4122635	4122635	4124905	2271	-	6	0	1	2	3	2	4	6	b3935	priA	4122635	4124833	inside
pORF_-_4126101	4126101	4126556	456	-	4	1	9	15	22	90	132	198	b3938	metJ	4126101	4126418	inside

pORF_-_4132838	4132838	4133086	249	-	6	0	1	1	1	6	6	6					FP
pORF_-_4135063	4135063	4135680	618	-	5	0	0	1	2	0	3	5	b3944	yijF	4135063	4135680	equal
pORF_-_4135955	4135955	4137097	1143	-	6	0	1	4	9	27	41	59	b3945	gldA	4135955	4137058	inside
pORF_-_4137069	4137069	4137731	663	-	4	0	1	3	4	2	7	11	b3946	fsaB	4137069	4137731	equal
pORF_-_4137743	4137743	4140244	2502	-	6	3	4	4	4	2	2	2	b3947	ptsA	4137743	4140244	equal
pORF_-_4140610	4140610	4140930	321	-	5	0	1	1	1	4	4	4					FP
pORF_-_4143546	4143546	4143701	156	-	4	0	1	1	1	3	3	3					FP
pORF_-_4146555	4146555	4148288	1734	-	4	1	3	11	17	15	41	66	b3955	yijP	4146555	4148288	equal
pORF_-_4148470	4148470	4151121	2652	-	5	34	87	145	200	1585	2290	2941	b3956	ppc	4148470	4151121	equal
pORF_-_4151719	4151719	4152909	1191	-	5	0	12	26	37	273	360	446	b3957	argE	4151719	4152870	inside
pORF_-_4157413	4157413	4158813	1401	-	5	4	11	23	33	34	72	107	b3962	sthA	4157413	4158813	equal
pORF_-_4160193	4160193	4161293	1101	-	4	1	4	13	21	6	36	64	b3965	trmA	4160193	4161293	equal
pORF_-_4172099	4172099	4173205	1107	-	6	0	2	6	11	53	66	92	b3974	coaA	4172099	4173049	inside
pORF_-_4173417	4173417	4173590	174	-	4	0	0	1	1	0	15	15					FP
pORF_-_4183327	4183327	4183506	180	-	5	0	0	0	1	0	0	3					FP
pORF_-_4188758	4188758	4189891	1134	-	6	0	1	4	4	3	10	10	b3990	thiH	4188758	4189891	equal
pORF_-_4189888	4189888	4190916	1029	-	5	10	26	37	39	415	463	470	b3991	thiG	4189888	4190658	inside
pORF_-_4190660	4190660	4190887	228	-	6	0	0	1	1	0	3	3	b4407	thiS	4190660	4190860	inside
pORF_-_4190844	4190844	4191692	849	-	4	4	13	19	20	274	315	319	b3992	thiF	4190844	4191599	inside
pORF_-_4191592	4191592	4192230	639	-	5	3	20	25	26	593	619	621	b3993	thiE	4191592	4192227	inside
pORF_-_4192227	4192227	4194122	1896	-	4	21	51	71	82	652	819	860	b3994	thiC	4192227	4194122	equal
pORF_-_4194355	4194355	4194831	477	-	5	0	2	3	5	69	81	88	b3995	rsd	4194355	4194831	equal
pORF_-_4196811	4196811	4197266	456	-	4	0	1	1	2	11	11	26					FP
pORF_-_4199231	4199231	4199320	90	-	6	0	2	2	2	6	6	6					FP
pORF_-_4202665	4202665	4203954	1290	-	5	8	31	48	63	562	664	757	b4005	purD	4202665	4203954	equal
pORF_-_4203966	4203966	4205555	1590	-	4	21	80	109	139	2744	2934	3112	b4006	purH	4203966	4205555	equal
pORF_-_4220827	4220827	4221690	864	-	5	3	3	3	3	0	0	0	b4018	iclR	4220827	4221651	inside
pORF_-_4223275	4223275	4223460	186	-	5	0	1	1	1	7	7	7					FP
pORF_-_4227476	4227476	4228165	690	-	6	0	4	6	10	24	31	40	b4021	pepE	4227476	4228165	equal
pORF_-_4229382	4229382	4229654	273	-	4	0	0	1	2	0	2	4	b4023	pagB	4229382	4229654	equal
pORF_-_4229907	4229907	4231256	1350	-	4	2	33	55	74	418	586	720	b4024	lysC	4229907	4231256	equal
pORF_-_4238802	4238802	4240277	1476	-	4	0	1	1	1	32	32	32	b4031	xylE	4238802	4240277	equal
pORF_-_4243252	4243252	4244442	1191	-	5	16	30	34	59	330	348	521	b4034	malE	4243252	4244442	equal
pORF_-_4252066	4252066	4254549	2484	-	5	3	10	27	41	28	123	185	b4041	plsB	4252066	4254489	inside
pORF_-_4255447	4255447	4255749	303	-	5	0	1	1	1	2	2	2					FP
pORF_-_4257511	4257511	4258086	576	-	5	0	1	2	2	4	7	7	b4046	zur	4257511	4258026	inside
pORF_-_4261271	4261271	4262362	1092	-	6	2	11	22	34	68	115	196	b4051	qor	4261271	4262254	inside
pORF_-_4268369	4268369	4268530	162	-	6	0	1	1	1	2	2	2					FP
pORF_-_4269072	4269072	4271894	2823	-	4	15	21	33	35	24	59	64	b4058	uvrA	4269072	4271894	equal
pORF_-_4273812	4273812	4274012	201	-	4	0	1	2	3	3	22	41					FP
pORF_-_4276598	4276598	4276930	333	-	6	0	0	1	1	0	2	2					FP
pORF_-_4276915	4276915	4277517	603	-	5	0	0	0	1	0	0	2					FP
pORF_-_4279283	4279283	4279435	153	-	6	0	0	1	1	0	6	6					FP
pORF_-_4281276	4281276	4282925	1650	-	4	0	2	2	3	11	11	14	b4067	actP	4281276	4282925	equal
pORF_-_4282922	4282922	4283239	318	-	6	0	0	0	1	0	0	4	b4068	yjch	4282922	4283236	inside
pORF_-_4283436	4283436	4285394	1959	-	4	2	35	53	96	409	483	955	b4069	acs	4283436	4285394	equal

pORF_-_4294459	4294459	4295148	690	-	5	0	1	1	1	3	3	3	b4078	yjcO	4294459	4295148	equal	
pORF_-_4301101	4301101	4302132	1032	-	5	0	1	1	1	2	2	2	b4082	mdtN	4301101	4302132	equal	
pORF_-_4302635	4302635	4304632	1998	-	6	0	1	1	1	28	28	28	b4083	yjcS	4302635	4304620	inside	
pORF_-_4306512	4306512	4307492	981	-	4	0	1	1	1	2	2	2	b4086	alsC	4306512	4307492	equal	
pORF_-_4307471	4307471	4309003	1533	-	6	1	2	2	2	2	2	2	b4087	alsA	4307471	4309003	equal	
pORF_-_4309130	4309130	4310065	936	-	6	0	2	2	2	5	5	5	b4088	alsB	4309130	4310065	equal	
pORF_-_4310124	4310124	4311047	924	-	4	0	0	1	3	0	3	8	b4089	rpiR	4310124	4311014	inside	
pORF_-_4315238	4315238	4316032	795	-	6	1	1	1	1	0	0	0	b4096	phnL	4315238	4315918	inside	
pORF_-_4316029	4316029	4316817	789	-	5	1	1	1	1	0	0	0	b4097	phnK	4316029	4316787	inside	
pORF_-_4322400	4322400	4323188	789	-	4	2	2	2	2	0	0	0	b4106	phnC	4322400	4323188	equal	
pORF_-_4323321	4323321	4323764	444	-	4	0	1	1	4	3	3	11	b4107	yjdN	4323321	4323764	equal	
pORF_-_4324422	4324422	4324904	483	-	4	3	4	6	8	3	22	43	b4108	yjdM	4324422	4324757	inside	
pORF_-_4331305	4331305	4331973	669	-	5	0	0	0	2	0	0	4	b4113	basR	4331305	4331973	equal	
pORF_-_4336277	4336277	4338547	2271	-	6	0	1	1	1	8	8	8	b4117	adiA	4336277	4338547	equal	
pORF_-_4336786	4336786	4336929	144	-	5	0	1	1	1	2	2	2						FP
pORF_-_4343703	4343703	4345349	1647	-	4	7	13	37	49	346	486	524	b4122	fumB	4343703	4345349	equal	
pORF_-_4345427	4345427	4346767	1341	-	6	0	1	1	1	8	8	8	b4123	dcuB	4345427	4346767	equal	
pORF_-_4347338	4347338	4348057	720	-	6	0	0	0	1	0	0	3	b4124	dcuR	4347338	4348057	equal	
pORF_-_4351223	4351223	4352767	1545	-	6	37	49	75	92	290	461	606	b4129	lysU	4351223	4352740	inside	
pORF_-_4352302	4352302	4352472	171	-	5	0	0	1	1	0	3	3						FP
pORF_-_4353524	4353524	4353802	279	-	6	0	0	0	1	0	0	2						FP
pORF_-_4354493	4354493	4356679	2187	-	6	0	1	1	1	2	2	2	b4131	cadA	4354493	4356640	inside	
pORF_-_4360756	4360756	4361355	600	-	5	0	3	9	16	31	51	86	b4135	yjdC	4360756	4361331	inside	
pORF_-_4361368	4361368	4363146	1779	-	5	0	0	1	2	0	3	7	b4136	dipZ	4361368	4363065	inside	
pORF_-_4363041	4363041	4363385	345	-	4	0	0	3	4	0	11	13	b4137	cutA	4363041	4363379	inside	
pORF_-_4363495	4363495	4364796	1302	-	5	0	1	2	3	2	6	8	b4138	dcuA	4363495	4364796	equal	
pORF_-_4364914	4364914	4366395	1482	-	5	10	18	20	27	89	95	121	b4139	aspA	4364914	4366350	inside	
pORF_-_4375212	4375212	4375745	534	-	4	0	0	2	5	0	4	17	b4149	blc	4375212	4375745	equal	
pORF_-_4375834	4375834	4377162	1329	-	5	2	2	6	9	0	11	25	b4150	ampC	4375834	4376967	inside	
pORF_-_4377806	4377806	4378597	792	-	6	0	5	10	13	107	124	135	b4153	frdB	4377806	4378540	inside	
pORF_-_4378533	4378533	4380341	1809	-	4	3	12	18	26	70	87	116	b4154	frdA	4378533	4380341	equal	
pORF_-_4384070	4384070	4387393	3324	-	6	0	0	3	5	0	8	15	b4159	yjeP	4384070	4387393	equal	
pORF_-_4387384	4387384	4387581	198	-	5	0	1	1	1	33	33	33						FP
pORF_-_4387415	4387415	4388383	969	-	6	4	8	16	22	18	41	66	b4160	psd	4387415	4388383	equal	
pORF_-_4388480	4388480	4389565	1086	-	6	2	8	17	21	19	44	62	b4161	rsgA	4388480	4389532	inside	
pORF_-_4392877	4392877	4393176	300	-	5	0	0	0	1	0	0	3						FP
pORF_-_4394373	4394373	4394687	315	-	4	0	1	1	2	4	4	10						FP
pORF_-_4394805	4394805	4394993	189	-	4	0	1	1	1	4	4	4						FP
pORF_-_4397801	4397801	4398064	264	-	6	0	0	0	1	0	0	2						FP
pORF_-_4408752	4408752	4408886	135	-	4	0	1	1	1	2	2	2						FP
pORF_-_4414464	4414464	4414892	429	-	4	0	0	0	1	0	0	3	b4189	yjfO	4414464	4414793	inside	
pORF_-_4415208	4415208	4415384	177	-	4	0	1	1	1	2	2	2						FP
pORF_-_4415721	4415721	4416476	756	-	4	0	0	1	2	0	3	7	b4191	ulaR	4415721	4416476	equal	
pORF_-_4420215	4420215	4420946	732	-	4	0	1	1	1	2	2	2						FP
pORF_-_4422539	4422539	4422883	345	-	6	0	0	0	1	0	0	2	b4199	yjfY	4422539	4422814	inside	
pORF_-_4424651	4424651	4425445	795	-	6	0	0	1	2	0	2	6	b4204	yjfZ	4424651	4425445	equal	

pORF_-_4426102	4426102	4426776	675	-	5	0	0	1	2	0	2	6	b4206	ytfB	4426102	4426740	inside	
pORF_-_4428447	4428447	4428656	210	-	4	0	1	1	1	2	2	2						FP
pORF_-_4431187	4431187	4432047	861	-	5	3	9	16	19	25	46	58	b4211	ytfG	4431187	4432047	equal	
pORF_-_4432270	4432270	4432590	321	-	5	0	0	1	1	0	3	3						FP
pORF_-_4432645	4432645	4434597	1953	-	5	5	15	23	40	93	111	162	b4213	cpdB	4432645	4434588	inside	
pORF_-_4436731	4436731	4437285	555	-	5	0	1	1	2	2	2	5	b4216	ytfJ	4436731	4437285	equal	
pORF_-_4437895	4437895	4439238	1344	-	5	0	1	1	1	3	3	3	b4218	ytfL	4437895	4439238	equal	
pORF_-_4439561	4439561	4440265	705	-	6	0	4	7	13	24	35	68	b4219	msrA	4439561	4440199	inside	
pORF_-_4440410	4440410	4440598	189	-	6	0	1	1	1	2	2	2						FP
pORF_-_4442056	4442056	4442310	255	-	5	0	0	1	1	0	3	3						FP
pORF_-_4444519	4444519	4444740	222	-	5	0	1	1	1	4	4	4						FP
pORF_-_4447145	4447145	4447675	531	-	6	13	44	59	71	1862	1980	2076	b4226	ppa	4447145	4447675	equal	
pORF_-_4452634	4452634	4453695	1062	-	5	6	22	33	42	362	402	431	b4232	fbp	4452634	4453632	inside	
pORF_-_4455337	4455337	4455888	552	-	5	6	7	10	13	44	56	70	b4234	yjgA	4455337	4455888	equal	
pORF_-_4458545	4458545	4460683	2139	-	6	0	1	2	7	2	7	20	b4238	nrdD	4458545	4460683	equal	
pORF_-_4461077	4461077	4462879	1803	-	6	5	5	5	5	0	0	0	b4239	treC	4461077	4462732	inside	
pORF_-_4462782	4462782	4464203	1422	-	4	2	2	2	2	0	0	0	b4240	treB	4462782	4464203	equal	
pORF_-_4464322	4464322	4465269	948	-	5	0	0	1	2	0	2	4	b4241	treR	4464322	4465269	equal	
pORF_-_4468550	4468550	4469008	459	-	6	2	26	34	42	1340	1476	1609	b4243	yjgF	4468550	4468936	inside	
pORF_-_4469009	4469009	4469470	462	-	6	3	39	53	64	1479	1588	1678	b4244	pyrI	4469009	4469470	equal	
pORF_-_4469483	4469483	4470418	936	-	6	14	84	111	136	3598	4101	4514	b4245	pyrB	4469483	4470418	equal	
pORF_-_4475330	4475330	4476334	1005	-	6	0	28	46	61	1305	1462	1558	b4254	argI	4475330	4476334	equal	
pORF_-_4477057	4477057	4477560	504	-	5	0	2	3	5	8	10	15	b4256	yjgM	4477057	4477560	equal	
pORF_-_4479005	4479005	4481860	2856	-	6	37	83	129	170	889	1155	1454	b4258	valS	4479005	4481860	equal	
pORF_-_4481860	4481860	4482303	444	-	5	0	1	1	3	45	45	49	b4259	holC	4481860	4482303	equal	
pORF_-_4482463	4482463	4483974	1512	-	5	11	25	44	58	241	360	482	b4260	pepA	4482463	4483974	equal	
pORF_-_4485478	4485478	4485672	195	-	5	1	1	1	1	0	0	0						FP
pORF_-_4486584	4486584	4488086	1503	-	4	0	9	14	26	48	62	97	b4263	yjgR	4486584	4488086	equal	
pORF_-_4488164	4488164	4489192	1029	-	6	0	1	1	1	4	4	4	b4264	idnR	4488164	4489162	inside	
pORF_-_4490610	4490610	4491374	765	-	4	1	1	1	1	0	0	0	b4266	idnO	4490610	4491374	equal	
pORF_-_4493213	4493213	4494274	1062	-	6	0	0	1	1	0	2	2	b4269	yjgB	4493213	4494232	inside	
pORF_-_4509481	4509481	4510947	1467	-	5	0	1	2	5	2	4	10	b4288	fecD	4509481	4510437	inside	
pORF_-_4511429	4511429	4512337	909	-	6	3	3	3	4	0	0	2	b4290	fecB	4511429	4512331	inside	
pORF_-_4512376	4512376	4514700	2325	-	5	9	9	9	9	0	0	0	b4291	fecA	4512376	4514700	equal	
pORF_-_4517361	4517361	4518347	987	-	4	2	4	7	9	17	25	30	b4295	yjhU	4517361	4518347	equal	
pORF_-_4526134	4526134	4526940	807	-	5	0	0	0	2	0	0	9	b4303	sgcQ	4526134	4526940	equal	
pORF_-_4528278	4528278	4528556	279	-	4	0	0	0	2	0	0	6	b4565	sgcB	4528278	4528556	equal	
pORF_-_4528553	4528553	4529704	1152	-	6	0	0	0	2	0	0	8	b4305	sgcX	4528553	4529674	inside	
pORF_-_4535682	4535682	4536896	1215	-	4	0	0	2	5	0	4	11	b4310	nanM	4535682	4536788	inside	
pORF_-_4537227	4537227	4537439	213	-	4	0	1	1	1	2	2	2						FP
pORF_-_4541059	4541059	4541214	156	-	5	0	1	1	1	11	11	11						FP
pORF_-_4551296	4551296	4551502	207	-	6	0	0	1	2	0	9	18						FP
pORF_-_4552406	4552406	4552612	207	-	6	0	0	1	2	0	6	12						FP
pORF_-_4555401	4555401	4556312	912	-	4	0	0	0	1	0	0	2	b4327	yjiE	4555401	4556312	equal	
pORF_-_4556377	4556377	4557549	1173	-	5	8	16	21	28	120	135	152	b4328	iadA	4556377	4557549	equal	
pORF_-_4558020	4558020	4558715	696	-	4	0	1	1	1	2	2	2	b4330	yjiH	4558020	4558703	inside	

