

ABBREVIATION	METABOLITE NAME	COMPARTMENT	FORMULA	CHARGE
10fthf	10-Formyltetrahydrofolate	cytosol	C20H22N7O7	-1
10fthf	10-Formyltetrahydrofolate	mitochondrion	C20H22N7O7	-1
* 12dgr_SC	1,2-Diacylglycerol, yeast-specific	cytosol	C3540H6644O500	0
13BDgln	1,3-beta-D-Glucan	cytosol	C6H10O5	0
13BDgln	1,3-beta-D-Glucan	extracellular	C6H10O5	0
13dampp	1,3-Diaminopropane	cytosol	C3H12N2	2
13dpg	3-Phospho-D-glyceroyl phosphate	cytosol	C3H4O10P2	-4
14glun	(1,4-alpha-D-Glucosyl)n	cytosol	C6H12O6	0
1Dgali	1-alpha-D-Galactosyl-myo-inositol	cytosol	C12H22O11	0
* 1ag3p_SC	1-Acyl-sn-glycerol 3-phosphate	cytosol	C1920H3622O700P100	-200
* 1agly3p_SC	1-Acyl-glycerone 3-phosphate, yeast-specific	cytosol	C1920H3422O700P100	-200
1p3h5c	L-1-Pyrroline-3-hydroxy-5-carboxylate	cytosol	C5H6NO3	-1
1p3h5c	L-1-Pyrroline-3-hydroxy-5-carboxylate	mitochondrion	C5H6NO3	-1
1pyr5c	1-Pyrroline-5-carboxylate	cytosol	C5H6NO2	-1
1pyr5c	1-Pyrroline-5-carboxylate	mitochondrion	C5H6NO2	-1
23dhmb	(R)-2,3-Dihydroxy-3-methylbutanoate	mitochondrion	C5H9O4	-1
23dhmp	(R)-2,3-Dihydroxy-3-methylpentanoate	mitochondrion	C6H11O4	-1
23dpg	3-Phospho-D-glycerol phosphate	cytosol	C3H3O10P2	-5
25aics	(S)-2-[5-Amino-1-(5-phospho-D-riboseyl)imidazole-4-carboxamido]succinate	cytosol	C13H15N4O12P	-4
25dhpp	2,5-Diamino-6-hydroxy-4-(5'-phosphoribosylamino)-pyrimidine	cytosol	C9H14N5O8P	-2
2ahbut	(S)-2-Aceto-2-hydroxybutanoate	mitochondrion	C6H9O4	-1
2ahhmd	2-Amino-4-hydroxy-6-hydroxymethyl-7,8-dihydropteridine diphosphate	mitochondrion	C7H8N5O8P2	-3
2ahhmp	2-Amino-4-hydroxy-6-hydroxymethyl-7,8-dihydropteridine	mitochondrion	C7H9N5O2	0
2cpr5p	1-(2-Carboxyphenylamino)-1-deoxy-D-ribose 5-phosphate	cytosol	C12H13NO9P	-3
2dda7p	2-Dehydro-3-deoxy-D-arabino-heptonate 7-phosphate	cytosol	C7H10O10P	-3
2dda7p	2-Dehydro-3-deoxy-D-arabino-heptonate 7-phosphate	mitochondrion	C7H10O10P	-3
2dhp	2-Dehydropantoate	cytosol	C6H9O4	-1
2dhp	2-Dehydropantoate	mitochondrion	C6H9O4	-1
2dr1p	2-Deoxy-D-ribose 1-phosphate	cytosol	C5H9O7P	-2
2dr5p	2-Deoxy-D-ribose 5-phosphate	cytosol	C5H9O7P	-2
2hxdal	2-Hydroxy-hexadecanal	cytosol	C16H32O2	0
2ippm	2-Isopropylmaleate	cytosol	C7H8O4	-2
2mahmp	2-Methyl-4-amino-5-hydroxymethylpyrimidine diphosphate	cytosol	C6H8N3O7P2	-3
2mcit	2-Methylcitrate	cytosol	C7H7O7	-3
2mcit	2-Methylcitrate	mitochondrion	C7H7O7	-3
2obut	2-Oxobutanoate	cytosol	C4H5O3	-1
2obut	2-Oxobutanoate	mitochondrion	C4H5O3	-1
2ohph_5	2-Octaprenyl-6-hydroxyphenol (5 repeating units)	cytosol	C36H54O2	0
2ohph_5	2-Octaprenyl-6-hydroxyphenol (5 repeating units)	nucleus	C36H54O2	0
2ombzl_5	2-Octaprenyl-6-methoxy-1,4-benzoquinol (5 repeating units)	mitochondrion	C37H56O3	0
2omhmb1_5	2-Octaprenyl-3-methyl-5-hydroxy-6-methoxy-1,4-benzoquinol (5 repeating units)	mitochondrion	C38H58O4	0
2ommb1_5	2-Octaprenyl-3-methyl-6-methoxy-1,4-benzoquinol (5 repeating units)	mitochondrion	C38H58O3	0
2omph_5	2-Octaprenyl-6-methoxyphenol (5 repeating units)	cytosol	C37H56O2	0
2omph_5	2-Octaprenyl-6-methoxyphenol (5 repeating units)	mitochondrion	C37H56O2	0
2omph_5	2-Octaprenyl-6-methoxyphenol (5 repeating units)	nucleus	C37H56O2	0
2oph_5	2-Octaprenylphenol (5 repeating units)	cytosol	C36H54O	0
2oxoadp	2-Oxo adipate	cytosol	C6H6O5	-2
2oxoadp	2-Oxo adipate	mitochondrion	C6H6O5	-2
2pg	D-Glycerate 2-phosphate	cytosol	C3H4O7P	-3
34hpp	3-(4-Hydroxyphenyl)pyruvate	cytosol	C9H7O4	-1
34hpp	3-(4-Hydroxyphenyl)pyruvate	mitochondrion	C9H7O4	-1
34hpp	3-(4-Hydroxyphenyl)pyruvate	peroxisome	C9H7O4	-1
35ccmp	3',5'-Cyclic CMP	cytosol	C9H11N3O7P	-1

35cdamp	3',5'-Cyclic dAMP	cytosol	C10H11N5O5P	-1
35cgmmp	3',5'-Cyclic GMP	cytosol	C10H11N5O7P	-1
35cimp	3',5'-Cyclic IMP	cytosol	C10H10N4O7P	-1
3c2hmp	3-Carboxy-2-hydroxy-4-methylpentanoate	cytosol	C7H10O5	-2
3c3hmp	3-Carboxy-3-hydroxy-4-methylpentanoate	cytosol	C7H10O5	-2
3c3hmp	3-Carboxy-3-hydroxy-4-methylpentanoate	mitochondrion	C7H10O5	-2
3c4mop	3-Carboxy-4-methyl-2-oxopentanoate	cytosol	C7H8O5	-2
3c4mop	3-Carboxy-4-methyl-2-oxopentanoate	mitochondrion	C7H8O5	-2
3dhq	3-Dehydroquininate	cytosol	C7H9O6	-1
3dhsk	3-Dehydroshikimate	cytosol	C7H7O5	-1
3dsphgn	3-Dehydrosphinganine	cytosol	C18H38NO2	1
3hacoa	(S)-3-Hydroxyacyl-CoA	peroxisome	C24H35N7O18P3RS	-4
3hanthr	3-Hydroxyanthranilate	cytosol	C7H7NO3	0
3hdcoa	(S)-3-Hydroxydecanoyl-CoA	peroxisome	C31H50N7O18P3S	-4
3hddcoa	(S)-3-Hydroxydodecanoyl-CoA	peroxisome	C33H54N7O18P3S	-4
3hhdcoa	(S)-3-Hydroxyhexadecanoyl-CoA	peroxisome	C37H62N7O18P3S	-4
3hodcoa	(S)-3-Hydroxyoctadecanoyl-CoA	peroxisome	C39H66N7O18P3S	-4
3htdcoa	(S)-3-Hydroxytetradecanoyl-CoA	peroxisome	C35H58N7O18P3S	-4
3hxcco	(S)-3-Hydroxyhexacosyl-CoA	peroxisome	C47H82N7O18P3S	-4
3ig3p	C'-(3-Indolyl)-glycerol 3-phosphate	cytosol	C11H12NO6P	-2
3mob	3-Methyl-2-oxobutanoate	cytosol	C5H7O3	-1
3mob	3-Methyl-2-oxobutanoate	mitochondrion	C5H7O3	-1
3mop	(S)-3-Methyl-2-oxopentanoate	cytosol	C6H9O3	-1
3mop	(S)-3-Methyl-2-oxopentanoate	mitochondrion	C6H9O3	-1
3oacoa	3-Oxoacyl-CoA	peroxisome	C24H33N7O18P3RS	-4
3odcoa	3-Oxodecanoyl-CoA	peroxisome	C31H48N7O18P3S	-4
3oddcoa	3-Oxododecanoyl-CoA	peroxisome	C33H52N7O18P3S	-4
3ohdcoa	3-Oxohexadecanoyl-CoA	peroxisome	C37H60N7O18P3S	-4
3ohodcoa	3-Oxoctadecanoyl-CoA	peroxisome	C39H64N7O18P3S	-4
3ohxcco	3-Oxohexacosyl-CoA	peroxisome	C47H80N7O18P3S	-4
3ophb_5	3-Octaprenyl-4-hydroxybenzoate (5 repeating units)	cytosol	C37H53O3	-1
3ophb_5	3-Octaprenyl-4-hydroxybenzoate (5 repeating units)	mitochondrion	C37H53O3	-1
3otdcoa	3-Oxotetradecanoyl-CoA	peroxisome	C35H56N7O18P3S	-4
3pg	3-Phospho-D-glycerate	cytosol	C3H4O7P	-3
3php	3-Phosphohydroxypyruvate	cytosol	C3H2O7P	-3
3psme	5-O-(1-Carboxyvinyl)-3-phosphoshikimate	cytosol	C10H9O10P	-4
44mctr	4,4-dimethylcholesta-8,14,24-trienol	cytosol	C29H46O	0
44mzym	4,4-dimethylzymosterol	cytosol	C29H48O	0
4aabutn	4-Acetamidobutanoate	cytosol	C6H10NO3	-1
4abut	4-Aminobutanoate	cytosol	C4H9NO2	0
4abut	4-Aminobutanoate	extracellular	C4H9NO2	0
4abut	4-Aminobutanoate	mitochondrion	C4H9NO2	0
4abutn	4-Aminobutanal	cytosol	C4H10NO	1
4abutn	4-Aminobutanal	mitochondrion	C4H10NO	1
4abz	4-Aminobenzoate	cytosol	C7H6NO2	-1
4abz	4-Aminobenzoate	mitochondrion	C7H6NO2	-1
4adcho	4-amino-4-deoxychorismate	cytosol	C10H10NO5	-1
4ahmmp	4-Amino-5-hydroxymethyl-2-methylpyrimidine	cytosol	C6H9N3O	0
4ampm	4-Amino-2-methyl-5-phosphomethylpyrimidine	cytosol	C6H8N3O4P	-2
4fumacac	4-Fumarylacetoacetate	cytosol	C8H6O6	-2
4gudbd	4-Guanidinobutanamide	cytosol	C5H13N4O	1
4gudbutn	4-Guanidinobutanoate	cytosol	C5H11N3O2	0
4h2oglt	4-Hydroxy-2-oxoglutarate	cytosol	C5H4O6	-2
4h2oglt	4-Hydroxy-2-oxoglutarate	mitochondrion	C5H4O6	-2
4h2oglt	4-Hydroxy-2-oxoglutarate	peroxisome	C5H4O6	-2
4hbz	4-Hydroxybenzoate	cytosol	C7H5O3	-1
4hbz	4-Hydroxybenzoate	mitochondrion	C7H5O3	-1
4hglusa	L-4-Hydroxyglutamate semialdehyde	mitochondrion	C5H9NO4	0
4hpro-LT	trans-4-Hydroxy-L-proline	cytosol	C5H9NO3	0
4hpro-LT	trans-4-Hydroxy-L-proline	mitochondrion	C5H9NO3	0
4hthr	4-Hydroxy-L-threonine	cytosol	C4H9NO4	0
4mhetz	4-Methyl-5-(2-hydroxyethyl)-thiazole	cytosol	C6H9NOS	0
4mlacac	4-Maleylacetoacetate	cytosol	C8H6O6	-2
4mop	4-Methyl-2-oxopentanoate	cytosol	C6H9O3	-1
4mop	4-Methyl-2-oxopentanoate	mitochondrion	C6H9O3	-1
4mpetz	4-Methyl-5-(2-phosphoethyl)-thiazole	cytosol	C6H8NO4PS	-2

4mzym	4-methylzymosterol	cytosol	C28H46O	0
4mzym_int1	4-Methylzymosterol intermediate 1	cytosol	C29H46O3	0
4mzym_int2	4-Methylzymosterol intermediate 2	cytosol	C28H44O	0
4pasp	4-Phospho-L-aspartate	cytosol	C4H6NO7P	-2
4ppan	D-4'-Phosphopantothenate	cytosol	C9H15NO8P	-3
4ppcys	N-((R)-4-Phosphopantothenoyl)-L-cysteine	cytosol	C12H20N2O9PS	-3
4r5au	4-(1-D-Ribitylamino)-5-aminouracil	cytosol	C9H16N4O6	0
5aizc	5-amino-1-(5-phospho-D-ribose)-4-carboxylate	cytosol	C9H11N3O9P	-3
5aop	5-Amino-4-oxopentanoate	cytosol	C5H9NO3	0
5aop	5-Amino-4-oxopentanoate	extracellular	C5H9NO3	0
5aop	5-Amino-4-oxopentanoate	mitochondrion	C5H9NO3	0
5aprbu	5-Amino-6-(5'-phosphoribitylamino)uracil	cytosol	C9H15N4O9P	-2
5apru	5-Amino-6-(5'-phosphoribosylamino)uracil	cytosol	C9H13N4O9P	-2
5dpmev	(R)-5-Diphosphomevalonate	cytosol	C6H10O10P2	-4
5fthf	5-Formyltetrahydrofolate	cytosol	C20H21N7O7	-2
5fthf	5-Formyltetrahydrofolate	mitochondrion	C20H21N7O7	-2
5mta	5-Methylthioadenosine	cytosol	C11H15N5O3S	0
5mthf	5-Methyltetrahydrofolate	cytosol	C20H24N7O6	-1
5mthf	5-Methyltetrahydrofolate	mitochondrion	C20H24N7O6	-1
5pmev	(R)-5-Phosphomevalonate	cytosol	C6H10O7P	-3
6dg	D-Gal-alpha-1->6D-Glucose	cytosol	C12H22O11	0
6pgc	6-Phospho-D-gluconate	cytosol	C6H10O10P	-3
6pgl	6-phospho-D-glucono-1,5-lactone	cytosol	C6H9O9P	-2
6pgl	6-phospho-D-glucono-1,5-lactone	endoplasmic reticulum	C6H9O9P	-2
8aonn	8-Amino-7-oxononanoate	cytosol	C9H17NO3	0
8aonn	8-Amino-7-oxononanoate	extracellular	C9H17NO3	0
ACP	acyl carrier protein	cytosol	C11H21N2O7PRS	-1
ACP	acyl carrier protein	mitochondrion	C11H21N2O7PRS	-1
Dara14lac	D-Arabinono-1,4-lactone	cytosol	C5H8O5	0
L2aadp	L-2-Amino adipate	cytosol	C6H10NO4	-1
L2aadp6sa	L-2-Amino adipate 6-semialdehyde	cytosol	C6H11NO3	0
Lfmkynr	L-Formylkynurenine	cytosol	C11H12N2O4	0
Lkynr	L-Kynurenine	cytosol	C10H12N2O3	0
N1aspm	N1-Acetylspermidine	cytosol	C9H23N3O	2
N1sprm	N1-Acetylspermine	cytosol	C12H31N4O	3
NPmehis	N(pai)-Methyl-L-histidine	cytosol	C7H11N3O2	0
Sfglutth	S-Formylglutathione	cytosol	C11H16N3O7S	-1
Ssq23epx	(S)-Squalene-2,3-epoxide	cytosol	C30H50O	0
Ssq23epx	(S)-Squalene-2,3-epoxide	endoplasmic reticulum	C30H50O	0
aacoa	Acetoacetyl-CoA	cytosol	C25H36N7O18P3S	-4
aacoa	Acetoacetyl-CoA	mitochondrion	C25H36N7O18P3S	-4
abt	L-Arabinitol	cytosol	C5H12O5	0
abt	L-Arabinitol	extracellular	C5H12O5	0
ac	Acetate	cytosol	C2H3O2	-1
ac	Acetate	extracellular	C2H3O2	-1
ac	Acetate	mitochondrion	C2H3O2	-1
ac	Acetate	peroxisome	C2H3O2	-1
acACP	Acetyl-ACP	cytosol	C13H23N2O8PRS	-1
acACP	Acetyl-ACP	mitochondrion	C13H23N2O8PRS	-1
acac	Acetoacetate	cytosol	C4H5O3	-1
acald	Acetaldehyde	cytosol	C2H4O	0
acald	Acetaldehyde	extracellular	C2H4O	0
acald	Acetaldehyde	mitochondrion	C2H4O	0
accoa	Acetyl-CoA	cytosol	C23H34N7O17P3S	-4
accoa	Acetyl-CoA	mitochondrion	C23H34N7O17P3S	-4
accoa	Acetyl-CoA	nucleus	C23H34N7O17P3S	-4
accoa	Acetyl-CoA	peroxisome	C23H34N7O17P3S	-4
acg5p	N-Acetyl-L-glutamyl 5-phosphate	mitochondrion	C7H9NO8P	-3
acg5sa	N-Acetyl-L-glutamate 5-semialdehyde	mitochondrion	C7H10NO4	-1
acgam1p	N-Acetyl-D-glucosamine 1-phosphate	cytosol	C8H14NO9P	-2
acgam6p	N-Acetyl-D-glucosamine 6-phosphate	cytosol	C8H14NO9P	-2
acglu	N-Acetyl-L-glutamate	mitochondrion	C7H9NO5	-2
achms	O-Acetyl-L-homoserine	cytosol	C6H11NO4	0
acoa	Acyl-CoA	peroxisome	C22H31N7O17P3RS	-4
acorn	N2-Acetyl-L-ornithine	mitochondrion	C7H14N2O3	0
acrn	O-Acetylcarnitine	cytosol	C9H17NO4	0
acrn	O-Acetylcarnitine	mitochondrion	C9H17NO4	0

acrn	O-Acetylcarnitine	peroxisome	C9H17NO4	0
acser	O-Acetyl-L-serine	cytosol	C5H9NO4	0
acybut	gamma-Amino-gamma-cyanobutanoate	cytosol	C5H8N2O2	0
ade	Adenine	cytosol	C5H5N5	0
ade	Adenine	extracellular	C5H5N5	0
ade	Adenine	mitochondrion	C5H5N5	0
adn	Adenosine	cytosol	C10H13N5O4	0
adn	Adenosine	extracellular	C10H13N5O4	0
adn	Adenosine	mitochondrion	C10H13N5O4	0
adp	ADP	cytosol	C10H12N5O10P2	-3
adp	ADP	Golgi apparatus	C10H12N5O10P2	-3
adp	ADP	mitochondrion	C10H12N5O10P2	-3
adp	ADP	nucleus	C10H12N5O10P2	-3
adp	ADP	vacuole	C10H12N5O10P2	-3
adp	ADP	peroxisome	C10H12N5O10P2	-3
adprib	ADPribose	cytosol	C15H21N5O14P2	-2
adprib	ADPribose	mitochondrion	C15H21N5O14P2	-2
ahcys	S-Adenosyl-L-homocysteine	cytosol	C14H20N6O5S	0
ahcys	S-Adenosyl-L-homocysteine	mitochondrion	C14H20N6O5S	0
ahcys	S-Adenosyl-L-homocysteine	nucleus	C14H20N6O5S	0
ahdt	2-Amino-4-hydroxy-6-(erythro-1,2,3-trihydroxypropyl)dihydropteridine triphosphate	cytosol	C9H13N5O13P3	-3
aicar	5-Amino-1-(5-Phospho-D-ribosyl)imidazole-4-carboxamide	cytosol	C9H13N4O8P	-2
air	5-amino-1-(5-phospho-D-ribosyl)imidazole	cytosol	C8H12N3O7P	-2
akg	2-Oxoglutarate	cytosol	C5H4O5	-2
akg	2-Oxoglutarate	extracellular	C5H4O5	-2
akg	2-Oxoglutarate	mitochondrion	C5H4O5	-2
akg	2-Oxoglutarate	nucleus	C5H4O5	-2
akg	2-Oxoglutarate	peroxisome	C5H4O5	-2
ala-B	beta-Alanine	cytosol	C3H7NO2	0
ala-L	L-Alanine	cytosol	C3H7NO2	0
ala-L	L-Alanine	extracellular	C3H7NO2	0
ala-L	L-Alanine	mitochondrion	C3H7NO2	0
alac-S	(S)-2-Acetolactate	mitochondrion	C5H7O4	-1
alatrna	L-Alanyl-tRNA(Ala)	cytosol	C3H6NOR	1
allphn	Allophanate	cytosol	C2H3N2O3	-1
alltn	Allantoin	cytosol	C4H6N4O3	0
alltn	Allantoin	extracellular	C4H6N4O3	0
alltt	Allantoate	cytosol	C4H7N4O4	-1
alltt	Allantoate	extracellular	C4H7N4O4	-1
alpam	S-aminomethylidihydroliipoamide	mitochondrion	C9H21N2OS2	1
alpro	S-Aminomethylidihydroliipoilprotein	mitochondrion	CH6NS2X	1
am6sa	2-Aminomuconate 6-semialdehyde	cytosol	C6H7NO3	0
amet	S-Adenosyl-L-methionine	cytosol	C15H23N6O5S	1
amet	S-Adenosyl-L-methionine	extracellular	C15H23N6O5S	1
amet	S-Adenosyl-L-methionine	mitochondrion	C15H23N6O5S	1
amet	S-Adenosyl-L-methionine	nucleus	C15H23N6O5S	1
ametam	S-Adenosylmethioninamine	cytosol	C14H24N6O3S	2
amob	S-Adenosyl-4-methylthio-2-oxobutanoate	cytosol	C15H19N5O6S	0
amp	AMP	cytosol	C10H12N5O7P	-2
amp	AMP	mitochondrion	C10H12N5O7P	-2
amp	AMP	peroxisome	C10H12N5O7P	-2
amuco	2-Aminomuconate	cytosol	C6H6NO4	-1
anth	Anthranilate	cytosol	C7H6NO2	-1
ap4a	P1,P4-Bis(5'-adenosyl) tetraphosphate	cytosol	C20H24N10O19P4	-4
ap4g	P1-(5'-adenosyl),P4-(5'-guanosyl) tetraphosphate	cytosol	C20H24N10O20P4	-4
apep	Nalpha-Acetylpeptide	cytosol	C6H7N2O4R2	-1
aproa	3-Aminopropanal	cytosol	C3H8NO	1
aprop	alpha-Aminopropiononitrile	cytosol	C3H7N2	1
aprut	N-Acetylputrescine	cytosol	C6H15N2O	1
aps	Adenosine 5'-phosphosulfate	cytosol	C10H12N5O10PS	-2
arab-D	D-Arabinose	cytosol	C5H10O5	0
arab-D	D-Arabinose	extracellular	C5H10O5	0
arab-L	L-Arabinose	cytosol	C5H10O5	0
arab-L	L-Arabinose	extracellular	C5H10O5	0
arg-L	L-Arginine	cytosol	C6H15N4O2	1
arg-L	L-Arginine	extracellular	C6H15N4O2	1

arg-L	L-Arginine	mitochondrion	C6H15N4O2	1
argsuc	N(omega)-(L-Arginino)succinate	cytosol	C10H17N4O6	-1
argtrna	L-Arginyl-tRNA(Arg)	cytosol	C6H14N4OR	2
argtrna	L-Arginyl-tRNA(Arg)	mitochondrion	C6H14N4OR	2
asn-L	L-Asparagine	cytosol	C4H8N2O3	0
asn-L	L-Asparagine	extracellular	C4H8N2O3	0
asn-L	L-Asparagine	mitochondrion	C4H8N2O3	0
asntrna	L-Asparaginyl-tRNA(Asn)	cytosol	C4H7N2O2R	1
asntrna	L-Asparaginyl-tRNA(Asn)	mitochondrion	C4H7N2O2R	1
asp-L	L-Aspartate	cytosol	C4H6NO4	-1
asp-L	L-Aspartate	extracellular	C4H6NO4	-1
asp-L	L-Aspartate	mitochondrion	C4H6NO4	-1
asp-L	L-Aspartate	nucleus	C4H6NO4	-1
asp-L	L-Aspartate	peroxisome	C4H6NO4	-1
aspsa	L-Aspartate 4-semialdehyde	cytosol	C4H7NO3	0
asptrna	L-Aspartyl-tRNA(Asp)	cytosol	C4H5NO3R	0
asptrna	L-Aspartyl-tRNA(Asp)	mitochondrion	C4H5NO3R	0
atp	ATP	cytosol	C10H12N5O13P3	-4
atp	ATP	Golgi apparatus	C10H12N5O13P3	-4
atp	ATP	mitochondrion	C10H12N5O13P3	-4
atp	ATP	nucleus	C10H12N5O13P3	-4
atp	ATP	vacuole	C10H12N5O13P3	-4
atp	ATP	peroxisome	C10H12N5O13P3	-4
b124tc	But-1-ene-1,2,4-tricarboxylate	mitochondrion	C7H5O6	-3
btn	Biotin	cytosol	C10H15N2O3S	-1
btn	Biotin	extracellular	C10H15N2O3S	-1
camp	cAMP	cytosol	C10H11N5O6P	-1
caphis	2-(3-Carboxy-3-aminopropyl)-L-histidine	cytosol	C10H16N4O4	0
cbasp	N-Carbamoyl-L-aspartate	cytosol	C5H6N2O5	-2
cbasp	N-Carbamoyl-L-aspartate	nucleus	C5H6N2O5	-2
cbp	Carbamoyl phosphate	cytosol	CH2NO5P	-2
cbp	Carbamoyl phosphate	nucleus	CH2NO5P	-2
cdp	CDP	cytosol	C9H12N3O11P2	-3
cdp	CDP	nucleus	C9H12N3O11P2	-3
cdpchol	CDPcholine	cytosol	C14H25N4O11P2	-1
* cdpdag_SC	CDPdiacylglycerol, yeast-specific	cytosol	C4440H7744N300O1500 P200	-200
* cdpdag_SC	CDPdiacylglycerol, yeast-specific	mitochondrion	C4440H7744N300O1500 P200	-200
cdpea	CDPethanolamine	cytosol	C11H19N4O11P2	-1
cer1_24	Ceramide-1 (Sphinganine:n-C24:0)	cytosol	C42H85NO3	0
cer1_26	Ceramide-1 (Sphinganine:n-C26:0)	cytosol	C44H89NO3	0
cer2_24	Ceramide-2' (Sphinganine:n-C24:0OH)	cytosol	C42H85NO4	0
cer2_26	Ceramide-2' (Sphinganine:n-C26:0OH)	cytosol	C44H89NO4	0
cer2_24	Ceramide-2 (Phytosphingosine:n-C24:0)	cytosol	C42H85NO4	0
cer2_26	Ceramide-2 (Phytosphingosine:n-C26:0)	cytosol	C44H89NO4	0
cer3_24	Ceramide-3 (Phytosphingosine:n-C24:0OH)	cytosol	C42H85NO5	0
cer3_26	Ceramide-3 (Phytosphingosine:n-C26:0OH)	cytosol	C44H89NO5	0
cgly	Cys-Gly	cytosol	C5H10N2O3S	0
ch4s	Methanethiol	cytosol	CH4S	0
chitin	Chitin	cytosol	C8H13NO5	0
chitos	Chitosan	cytosol	C6H11NO4	0
chol	Choline	cytosol	C5H14NO	1
chol	Choline	extracellular	C5H14NO	1
cholp	Choline phosphate	cytosol	C5H13NO4P	-1
chor	Chorismate	cytosol	C10H8O6	-2
cit	Citrate	cytosol	C6H5O7	-3
cit	Citrate	extracellular	C6H5O7	-3
cit	Citrate	mitochondrion	C6H5O7	-3
cit	Citrate	peroxisome	C6H5O7	-3
citr-L	L-Citrulline	cytosol	C6H13N3O3	0
* clpn_SC	Cardiolipin, yeast-specific	mitochondrion	C7380H13688O1700P200	-200
cmaphis	2-[3-Carboxy-3-(methylammonio)propyl]-L-histidine	cytosol	C11H18N4O4	0
cmp	CMP	cytosol	C9H12N3O8P	-2
cmp	CMP	mitochondrion	C9H12N3O8P	-2
cmusa	2-Amino-3-carboxymuconate semialdehyde	cytosol	C7H6NO5	-1

co2	CO2	cytosol	CO2	0
co2	CO2	extracellular	CO2	0
co2	CO2	Golgi apparatus	CO2	0
co2	CO2	mitochondrion	CO2	0
co2	CO2	nucleus	CO2	0
co2	CO2	vacuole	CO2	0
co2	CO2	peroxisome	CO2	0
coa	Coenzyme A	cytosol	C21H32N7O16P3S	-4
coa	Coenzyme A	mitochondrion	C21H32N7O16P3S	-4
coa	Coenzyme A	nucleus	C21H32N7O16P3S	-4
coa	Coenzyme A	peroxisome	C21H32N7O16P3S	-4
cpppg3	Coproporphyrinogen III	cytosol	C36H40N4O8	-4
crn	L-Carnitine	cytosol	C7H15NO3	0
crn	L-Carnitine	extracellular	C7H15NO3	0
crn	L-Carnitine	mitochondrion	C7H15NO3	0
crn	L-Carnitine	peroxisome	C7H15NO3	0
csn	Cytosine	cytosol	C4H5N3O	0
csn	Cytosine	extracellular	C4H5N3O	0
ctp	CTP	cytosol	C9H12N3O14P3	-4
ctp	CTP	mitochondrion	C9H12N3O14P3	-4
cys-L	L-Cysteine	cytosol	C3H7NO2S	0
cys-L	L-Cysteine	extracellular	C3H7NO2S	0
cyst-L	L-Cystathionine	cytosol	C7H14N2O4S	0
cyst-L	L-Cystathionine	peroxisome	C7H14N2O4S	0
cystrna	L-Cysteinyl-tRNA(Cys)	cytosol	C3H6NOSR	1
cytd	Cytidine	cytosol	C9H13N3O5	0
cytd	Cytidine	extracellular	C9H13N3O5	0
dad-2	Deoxyadenosine	cytosol	C10H13N5O3	0
dad-2	Deoxyadenosine	extracellular	C10H13N5O3	0
dadp	dADP	cytosol	C10H12N5O9P2	-3
dadp	dADP	nucleus	C10H12N5O9P2	-3
* dagpy_SC	diacylglycerol pyrophosphate, yeast-specific	cytosol	C3540H6544O1100P200	-300
damp	dAMP	cytosol	C10H12N5O6P	-2
dann	7,8-Diaminononanoate	cytosol	C9H21N2O2	1
dann	7,8-Diaminononanoate	extracellular	C9H21N2O2	1
datp	dATP	cytosol	C10H12N5O12P3	-4
db4p	3,4-dihydroxy-2-butanone 4-phosphate	cytosol	C4H7O6P	-2
dc2coa	trans-Dec-2-enoyl-CoA	peroxisome	C31H48N7O17P3S	-4
dca	Decanoate (n-C10:0)	cytosol	C10H19O2	-1
dca	Decanoate (n-C10:0)	peroxisome	C10H19O2	-1
dcaACP	Decanoyl-ACP (n-C10:0ACP)	mitochondrion	C21H39N2O8PRS	-1
dcacoa	Decanoyl-CoA (n-C10:0CoA)	cytosol	C31H50N7O17P3S	-4
dcacoa	Decanoyl-CoA (n-C10:0CoA)	peroxisome	C31H50N7O17P3S	-4
dcamp	N6-(1,2-Dicarboxyethyl)-AMP	cytosol	C14H14N5O11P	-4
dcdp	dCDP	cytosol	C9H12N3O10P2	-3
dcdp	dCDP	nucleus	C9H12N3O10P2	-3
dcmp	dCMP	cytosol	C9H12N3O7P	-2
dctp	dCTP	cytosol	C9H12N3O13P3	-4
dcyt	Deoxycytidine	cytosol	C9H13N3O4	0
dcyt	Deoxycytidine	extracellular	C9H13N3O4	0
dd2coa	trans-Dodec-2-enoyl-CoA	peroxisome	C33H52N7O17P3S	-4
ddca	Dodecanoate (n-C12:0)	cytosol	C12H23O2	-1
ddca	Dodecanoate (n-C12:0)	peroxisome	C12H23O2	-1
ddcaACP	Dodecanoyl-ACP (n-C12:0ACP)	cytosol	C23H43N2O8PRS	-1
ddcaACP	Dodecanoyl-ACP (n-C12:0ACP)	mitochondrion	C23H43N2O8PRS	-1
ddcacoa	Dodecanoyl-CoA (n-C12:0CoA)	cytosol	C33H54N7O17P3S	-4
ddcacoa	Dodecanoyl-CoA (n-C12:0CoA)	peroxisome	C33H54N7O17P3S	-4
dgdp	dGDP	cytosol	C10H12N5O10P2	-3
dgdp	dGDP	nucleus	C10H12N5O10P2	-3
dgmp	dGMP	cytosol	C10H12N5O7P	-2
dgsn	Deoxyguanosine	cytosol	C10H13N5O4	0
dgsn	Deoxyguanosine	extracellular	C10H13N5O4	0
dgtp	dGTP	cytosol	C10H12N5O13P3	-4
dha	Dihydroxyacetone	cytosol	C3H6O3	0
dhap	Dihydroxyacetone phosphate	cytosol	C3H5O6P	-2
dhap	Dihydroxyacetone phosphate	mitochondrion	C3H5O6P	-2
dhf	7,8-Dihydrofolate	cytosol	C19H20N7O6	-1
dhf	7,8-Dihydrofolate	mitochondrion	C19H20N7O6	-1

dhlam	Dihydrolipoamide	mitochondrion	C8H17NOS2	0
dhlpro	Dihydrolipolprotein	mitochondrion	H2S2X	0
dhnpt	2-Amino-4-hydroxy-6-(D-erythro-1,2,3-trihydroxypropyl)-7,8-dihydropteridine	cytosol	C9H14N5O4	1
dhnpt	2-Amino-4-hydroxy-6-(D-erythro-1,2,3-trihydroxypropyl)-7,8-dihydropteridine	mitochondrion	C9H14N5O4	1
dhor-S	(S)-Dihydroorotate	cytosol	C5H5N2O4	-1
dhor-S	(S)-Dihydroorotate	nucleus	C5H5N2O4	-1
dhpmp	Dihydroneopterin monophosphate	cytosol	C9H13N5O7P	-1
dhpt	Dihydropteroate	cytosol	C14H13N6O3	-1
dhpt	Dihydropteroate	mitochondrion	C14H13N6O3	-1
din	Deoxyinosine	cytosol	C10H12N4O4	0
din	Deoxyinosine	extracellular	C10H12N4O4	0
dmlz	6,7-Dimethyl-8-(1-D-ribityl)lumazine	cytosol	C13H18N4O6	0
dmpp	Dimethylalyl diphosphate	cytosol	C5H9O7P2	-3
dnad	Deamino-NAD+	cytosol	C21H24N6O15P2	-2
dnad	Deamino-NAD+	mitochondrion	C21H24N6O15P2	-2
dolichol	Dolichol	cytosol	C15H28O	0
dolmanp	Dolichyl phosphate D-mannose	endoplasmic reticulum	C21H38O9P	-1
dolp	Dolichol phosphate	cytosol	C15H27O4P	-2
dolp	Dolichol phosphate	endoplasmic reticulum	C15H27O4P	-2
dpcoa	Dephospho-CoA	cytosol	C21H33N7O13P2S	-2
dpcoa	Dephospho-CoA	mitochondrion	C21H33N7O13P2S	-2
drib	Deoxyribose	cytosol	C5H10O4	0
dtbt	Dethiobiotin	cytosol	C10H17N2O3	-1
dt dp	dTDP	cytosol	C10H13N2O11P2	-3
dt mp	dTMP	cytosol	C10H13N2O8P	-2
dt tp	dTTP	cytosol	C10H13N2O14P3	-4
dt tp	dTTP	extracellular	C10H13N2O14P3	-4
du dp	dUDP	cytosol	C9H11N2O11P2	-3
du dp	dUDP	nucleus	C9H11N2O11P2	-3
du mp	dUMP	cytosol	C9H11N2O8P	-2
du mp	dUMP	nucleus	C9H11N2O8P	-2
du ri	Deoxyuridine	cytosol	C9H12N2O5	0
du ri	Deoxyuridine	extracellular	C9H12N2O5	0
du tp	dUTP	cytosol	C9H11N2O14P3	-4
e4 hglu	L-erythro-4-Hydroxyglutamate	cytosol	C5H8NO5	-1
e4 hglu	L-erythro-4-Hydroxyglutamate	mitochondrion	C5H8NO5	-1
e4 hglu	L-erythro-4-Hydroxyglutamate	peroxisome	C5H8NO5	-1
e4 p	D-Erythrose 4-phosphate	cytosol	C4H7O7P	-2
e4 p	D-Erythrose 4-phosphate	mitochondrion	C4H7O7P	-2
eig3p	D-erythro-1-(Imidazol-4-yl)glycerol 3-phosphate	cytosol	C6H9N2O6P	-2
epist	episterol	cytosol	C28H46O	0
epm	Epimelibiose	cytosol	C12H22O11	0
ergst	Ergosterol	cytosol	C28H44O	0
ergst	Ergosterol	extracellular	C28H44O	0
ergst	Ergosterol	endoplasmic reticulum	C28H44O	0
ergtetrol	Ergosta-5,7,22,24,(28)-tetraen-3beta-ol	cytosol	C28H42O	0
ergtetrol	Ergosta-5,7,22,24,(28)-tetraen-3beta-ol	endoplasmic reticulum	C28H42O	0
ergtrol	ergosta-5,7,24(28)-trienol	cytosol	C28H44O	0
etha	Ethanolamine	cytosol	C2H8NO	1
ethamp	Ethanolamine phosphate	cytosol	C2H7NO4P	-1
etoh	Ethanol	cytosol	C2H6O	0
etoh	Ethanol	extracellular	C2H6O	0
etoh	Ethanol	mitochondrion	C2H6O	0
f1p	D-Fructose 1-phosphate	cytosol	C6H11O9P	-2
f26bp	D-Fructose 2,6-bisphosphate	cytosol	C6H10O12P2	-4
f6p	D-Fructose 6-phosphate	cytosol	C6H11O9P	-2
f6p-B	beta-D-Fructose 6-phosphate	cytosol	C6H11O9P	-2
fad	FAD	cytosol	C27H31N9O15P2	-2
fad	FAD	mitochondrion	C27H31N9O15P2	-2
fadh2	FADH2	mitochondrion	C27H33N9O15P2	-2
fald	Formaldehyde	cytosol	CH2O	0
fdp	D-Fructose 1,6-bisphosphate	cytosol	C6H10O12P2	-4
fe2	Fe2+	mitochondrion	Fe	2
fecost	fecosterol	cytosol	C28H46O	0
fgam	N2-Formyl-N1-(5-phospho-D-ribosyl)glycinamide	cytosol	C8H13N2O9P	-2
ficytc	Ferricytochrome c	mitochondrion	C42H52FeN8O6S2	1

fmettrna	N-Formylmethionyl-tRNA	mitochondrion	C6H9NO2SR	0
fmn	FMN	cytosol	C17H19N4O9P	-2
fmn	FMN	extracellular	C17H19N4O9P	-2
fmn	FMN	mitochondrion	C17H19N4O9P	-2
focytc	Ferrocycytochrome c	mitochondrion	C42H53FeN8O6S2	1
for	Formate	cytosol	CH1O2	-1
for	Formate	extracellular	CH1O2	-1
for	Formate	mitochondrion	CH1O2	-1
fpram	2-(Formamido)-N1-(5-phospho-D-ribose)acetamidine	cytosol	C8H15N3O8P	-1
fprica	5-Formamido-1-(5-phospho-D-ribose)imidazole-4-carboxamide	cytosol	C10H13N4O9P	-2
frdp	Farnesyl diphosphate	cytosol	C15H25O7P2	-3
fru	D-Fructose	cytosol	C6H12O6	0
fru	D-Fructose	extracellular	C6H12O6	0
fum	Fumarate	cytosol	C4H2O4	-2
fum	Fumarate	extracellular	C4H2O4	-2
fum	Fumarate	mitochondrion	C4H2O4	-2
g1p	D-Glucose 1-phosphate	cytosol	C6H11O9P	-2
g3p	Glyceraldehyde 3-phosphate	cytosol	C3H5O6P	-2
g6p	D-Glucose 6-phosphate	cytosol	C6H11O9P	-2
g6p	D-Glucose 6-phosphate	endoplasmic reticulum	C6H11O9P	-2
g6p-B	beta-D-glucose 6-phosphate	cytosol	C6H11O9P	-2
gal	D-Galactose	cytosol	C6H12O6	0
gal	D-Galactose	extracellular	C6H12O6	0
gal1p	alpha-D-Galactose 1-phosphate	cytosol	C6H11O9P	-2
gam1p	D-Glucosamine 1-phosphate	cytosol	C6H13NO8P	-1
gam6p	D-Glucosamine 6-phosphate	cytosol	C6H13NO8P	-1
gam6p	D-Glucosamine 6-phosphate	extracellular	C6H13NO8P	-1
gar	N1-(5-Phospho-D-ribose)glycinamide	cytosol	C7H14N2O8P	-1
gald	Glycolaldehyde	cytosol	C2H4O2	0
gald	Glycolaldehyde	extracellular	C2H4O2	0
gald	Glycolaldehyde	mitochondrion	C2H4O2	0
gdp	GDP	cytosol	C10H12N5O11P2	-3
gdp	GDP	Golgi apparatus	C10H12N5O11P2	-3
gdp	GDP	mitochondrion	C10H12N5O11P2	-3
gdp	GDP	nucleus	C10H12N5O11P2	-3
gdpmann	GDP-D-mannose	cytosol	C16H23N5O16P2	-2
gdpmann	GDP-D-mannose	Golgi apparatus	C16H23N5O16P2	-2
ggl	Galactosylglycerol	cytosol	C9H18O8	0
glc-D	D-Glucose	cytosol	C6H12O6	0
glc-D	D-Glucose	extracellular	C6H12O6	0
glc-D	D-Glucose	vacuole	C6H12O6	0
gln-L	L-Glutamine	cytosol	C5H10N2O3	0
gln-L	L-Glutamine	extracellular	C5H10N2O3	0
gln-L	L-Glutamine	nucleus	C5H10N2O3	0
glntrna	L-Glutamyl-tRNA(Gln)	cytosol	C5H9N2O2R	1
glp	Glycylpeptide	cytosol	C4H7N2O3R	0
glu-L	L-Glutamate	cytosol	C5H8NO4	-1
glu-L	L-Glutamate	extracellular	C5H8NO4	-1
glu-L	L-Glutamate	mitochondrion	C5H8NO4	-1
glu-L	L-Glutamate	nucleus	C5H8NO4	-1
glu-L	L-Glutamate	peroxisome	C5H8NO4	-1
glu5p	L-Glutamate 5-phosphate	cytosol	C5H8NO7P	-2
glu5sa	L-Glutamate 5-semialdehyde	cytosol	C5H9NO3	0
glu5sa	L-Glutamate 5-semialdehyde	mitochondrion	C5H9NO3	0
gluala	5-L-Glutamyl-L-alanine	cytosol	C8H13N2O5	-1
glucys	gamma-L-Glutamyl-L-cysteine	cytosol	C8H13N2O5S	-1
glutrna	L-Glutamyl-tRNA(Glu)	cytosol	C5H7NO3R	0
glutrna	L-Glutamyl-tRNA(Glu)	mitochondrion	C5H7NO3R	0
glx	Glyoxylate	cytosol	C2H1O3	-1
glx	Glyoxylate	peroxisome	C2H1O3	-1
gly	Glycine	cytosol	C2H5NO2	0
gly	Glycine	extracellular	C2H5NO2	0
gly	Glycine	mitochondrion	C2H5NO2	0
glyald	D-Glyceraldehyde	cytosol	C3H6O3	0
glyc	Glycerol	cytosol	C3H8O3	0
glyc	Glycerol	extracellular	C3H8O3	0

glyc3p	Glycerol 3-phosphate	cytosol	C3H7O6P	-2
glyc3p	Glycerol 3-phosphate	mitochondrion	C3H7O6P	-2
glycogen	glycogen	cytosol	C6H10O5	0
glytrna	Glycyl-tRNA(Gly)	cytosol	C2H4NOR	1
gmp	GMP	cytosol	C10H12N5O8P	-2
gmp	GMP	Golgi apparatus	C10H12N5O8P	-2
gp4g	P1,P4-Bis(5'-guanosyl) tetraphosphate	cytosol	C20H24N10O21P4	-4
grdp	Geranyl diphosphate	cytosol	C10H17O7P2	-3
gsn	Guanosine	cytosol	C10H13N5O5	0
gsn	Guanosine	extracellular	C10H13N5O5	0
gsn	Guanosine	mitochondrion	C10H13N5O5	0
gthox	Oxidized glutathione	cytosol	C20H30N6O12S2	-2
gthox	Oxidized glutathione	extracellular	C20H30N6O12S2	-2
gthrd	Reduced glutathione	cytosol	C10H16N3O6S	-1
gthrd	Reduced glutathione	mitochondrion	C10H16N3O6S	-1
gtp	GTP	cytosol	C10H12N5O14P3	-4
gtp	GTP	mitochondrion	C10H12N5O14P3	-4
gua	Guanine	cytosol	C5H5N5O	0
gua	Guanine	extracellular	C5H5N5O	0
gua	Guanine	mitochondrion	C5H5N5O	0
h	H+	cytosol	H	1
h	H+	extracellular	H	1
h	H+	Golgi apparatus	H	1
h	H+	mitochondrion	H	1
h	H+	nucleus	H	1
h	H+	endoplasmic reticulum	H	1
h	H+	vacuole	H	1
h	H+	peroxisome	H	1
h2o	H2O	cytosol	H2O	0
h2o	H2O	extracellular	H2O	0
h2o	H2O	Golgi apparatus	H2O	0
h2o	H2O	mitochondrion	H2O	0
h2o	H2O	nucleus	H2O	0
h2o	H2O	endoplasmic reticulum	H2O	0
h2o	H2O	vacuole	H2O	0
h2o	H2O	peroxisome	H2O	0
h2o2	Hydrogen peroxide	cytosol	H2O2	0
h2o2	Hydrogen peroxide	peroxisome	H2O2	0
h2s	Hydrogen sulfide	cytosol	H2S	0
hLkynr	3-Hydroxy-L-kynurenine	cytosol	C10H12N2O4	0
hcit	2-Hydroxybutane-1,2,4-tricarboxylate	mitochondrion	C7H7O7	-3
hcit	2-Hydroxybutane-1,2,4-tricarboxylate	nucleus	C7H7O7	-3
hco3	Bicarbonate	cytosol	CHO3	-1
hco3	Bicarbonate	mitochondrion	CHO3	-1
hco3	Bicarbonate	nucleus	CHO3	-1
hcys-L	L-Homocysteine	cytosol	C4H9NO2S	0
hcys-L	L-Homocysteine	peroxisome	C4H9NO2S	0
hdca	Hexadecanoate (n-C16:0)	cytosol	C16H31O2	-1
hdca	Hexadecanoate (n-C16:0)	extracellular	C16H31O2	-1
hdca	Hexadecanoate (n-C16:0)	peroxisome	C16H31O2	-1
hdcea	hexadecenoate (n-C16:1)	cytosol	C16H29O2	-1
hdcea	hexadecenoate (n-C16:1)	extracellular	C16H29O2	-1
hdcea	hexadecenoate (n-C16:1)	peroxisome	C16H29O2	-1
hdcoa	Hexadecenoyl-CoA (n-C16:1CoA)	cytosol	C37H60N7O17P3S	-4
hdcoa	Hexadecenoyl-CoA (n-C16:1CoA)	peroxisome	C37H60N7O17P3S	-4
hdd2coa	trans-Hexadec-2-enoyl-CoA	peroxisome	C37H60N7O17P3S	-4
hdeACP	Hexadecenoyl-ACP (n-C16:1ACP)	cytosol	C27H49N2O8PRS	-1
hdeACP	Hexadecenoyl-ACP (n-C16:1ACP)	mitochondrion	C27H49N2O8PRS	-1
hexc	hexacosanoate (n-C26:0)	cytosol	C26H51O2	-1
hexc	hexacosanoate (n-C26:0)	peroxisome	C26H51O2	-1
hexccoa	Hexacosanoyl-CoA (n-C26:0CoA)	cytosol	C47H82N7O17P3S	-4
hexccoa	Hexacosanoyl-CoA (n-C26:0CoA)	peroxisome	C47H82N7O17P3S	-4
hgentis	Homogentisate	cytosol	C8H7O4	-1
hicit	Homoisocitrate	mitochondrion	C7H7O7	-3
his-L	L-Histidine	cytosol	C6H9N3O2	0
his-L	L-Histidine	extracellular	C6H9N3O2	0
his-L	L-Histidine	mitochondrion	C6H9N3O2	0
hisp	L-Histidinol phosphate	cytosol	C6H11N3O4P	-1

histd	L-Histidinol	cytosol	C6H12N3O	1
histrna	L-Histidyl-tRNA(His)	cytosol	C6H8N3OR	1
histrna	L-Histidyl-tRNA(His)	mitochondrion	C6H8N3OR	1
hmbil	Hydroxymethylbilane	cytosol	C40H38N4O17	-8
hmgcoa	Hydroxymethylglutaryl-CoA	cytosol	C27H39N7O20P3S	-5
hmgcoa	Hydroxymethylglutaryl-CoA	mitochondrion	C27H39N7O20P3S	-5
hom-L	L-Homoserine	cytosol	C4H9NO3	0
hpglu	Tetrahydropteroyltri-L-glutamate	cytosol	C24H34N8O12	0
hxan	Hypoxanthine	cytosol	C5H4N4O	0
hxan	Hypoxanthine	extracellular	C5H4N4O	0
hxc2coa	trans-Hexacos-2-enoyl-CoA	peroxisome	C47H80N7O17P3S	-4
hxdcal	Hexadecanal	cytosol	C16H32O	0
iad	Indole-3-acetamide	cytosol	C10H10N2O	0
iasp	Iminoaspartate	cytosol	C4H4NO4	-1
icit	Isocitrate	cytosol	C6H5O7	-3
icit	Isocitrate	mitochondrion	C6H5O7	-3
icit	Isocitrate	peroxisome	C6H5O7	-3
id3acald	Indole-3-acetaldehyde	cytosol	C10H9NO	0
id3acald	Indole-3-acetaldehyde	mitochondrion	C10H9NO	0
idp	IDP	cytosol	C10H11N4O11P2	-3
idp	IDP	mitochondrion	C10H11N4O11P2	-3
ile-L	L-Isoleucine	cytosol	C6H13NO2	0
ile-L	L-Isoleucine	extracellular	C6H13NO2	0
ile-L	L-Isoleucine	mitochondrion	C6H13NO2	0
iletrna	L-Isoleucyl-tRNA(Ile)	cytosol	C6H12NOR	1
iletrna	L-Isoleucyl-tRNA(Ile)	mitochondrion	C6H12NOR	1
imacp	3-(Imidazol-4-yl)-2-oxopropyl phosphate	cytosol	C6H7N2O5P	-2
imp	IMP	cytosol	C10H11N4O8P	-2
ind3ac	Indole-3-acetate	cytosol	C10H8NO2	-1
ind3ac	Indole-3-acetate	mitochondrion	C10H8NO2	-1
ind3acnl	Indole-3-acetonitrile	cytosol	C10H8N2	0
indpyr	Indolepyruvate	cytosol	C11H8NO3	-1
inost	myo-Inositol	cytosol	C6H12O6	0
inost	myo-Inositol	extracellular	C6H12O6	0
ins	Inosine	cytosol	C10H12N4O5	0
ins	Inosine	extracellular	C10H12N4O5	0
* ipc124_SC	Inositol phosphorylceramide, ceramide-1 (24C), yeast-specific	cytosol	C4800H9500N100O1100 P100	-100
* ipc126_SC	Inositol phosphorylceramide, ceramide-1 (26C), yeast-specific	cytosol	C5000H9900N100O1100 P100	-100
* ipc224_SC	Inositol phosphorylceramide, ceramide-2 (24C), yeast-specific	cytosol	C4800H9500N100O1200 P100	-100
* ipc226_SC	Inositol phosphorylceramide, ceramide-2 (26C), yeast-specific	cytosol	C5000H9900N100O1200 P100	-100
* ipc324_SC	Inositol phosphorylceramide, ceramide-3 (24C), yeast-specific	cytosol	C4800H9500N100O1300 P100	-100
* ipc326_SC	Inositol phosphorylceramide, ceramide-3 (26C), yeast-specific	cytosol	C5000H9900N100O1300 P100	-100
ipdp	Isopentenyl diphosphate	cytosol	C5H9O7P2	-3
itaccoa	Itaconyl-CoA	mitochondrion	C26H35N7O19P3S	-5
itacon	Itaconate	mitochondrion	C5H4O4	-2
itp	ITP	cytosol	C10H11N4O14P3	-4
itp	ITP	mitochondrion	C10H11N4O14P3	-4
k	K+	cytosol	K	1
k	K+	extracellular	K	1
lac-D	D-Lactate	cytosol	C3H5O3	-1
lac-D	D-Lactate	mitochondrion	C3H5O3	-1
lac-L	L-Lactate	cytosol	C3H5O3	-1
lac-L	L-Lactate	extracellular	C3H5O3	-1
lac-L	L-Lactate	mitochondrion	C3H5O3	-1
lald-L	L-Lactaldehyde	mitochondrion	C3H6O2	0
lanost	Lanosterol	cytosol	C30H50O	0
leu-L	L-Leucine	cytosol	C6H13NO2	0
leu-L	L-Leucine	extracellular	C6H13NO2	0
leu-L	L-Leucine	mitochondrion	C6H13NO2	0
leutrna	L-Leucyl-tRNA(Leu)	cytosol	C6H12NOR	1
leutrna	L-Leucyl-tRNA(Leu)	mitochondrion	C6H12NOR	1
lgt-S	(R)-S-Lactoylglutathione	cytosol	C13H20N3O8S	-1

lgt-S	(R)-S-Lactoylglutathione	mitochondrion	C13H20N3O8S	-1
lpam	Lipoamide	mitochondrion	C8H15NOS2	0
lpro	Lipoylprotein	mitochondrion	S2X	0
lys-L	L-Lysine	cytosol	C6H15N2O2	1
lys-L	L-Lysine	extracellular	C6H15N2O2	1
lys-L	L-Lysine	mitochondrion	C6H15N2O2	1
lystrna	L-Lysine-tRNA (Lys)	cytosol	C6H14N2OR	2
lystrna	L-Lysine-tRNA (Lys)	mitochondrion	C6H14N2OR	2
m1macchitppdol	alpha-D-mannosyl-beta-D-mannosyl-diacetylchitobiosyldiphosphodolichol	Golgi apparatus	C43H74N2O27P2	-2
m2macchitppdol	(alpha-D-mannosyl)2-beta-D-mannosyl-diacetylchitobiosyldiphosphodolichol	Golgi apparatus	C49H84N2O32P2	-2
m3macchitppdol	(alpha-D-mannosyl)3-beta-D-mannosyl-diacetylchitobiosyldiphosphodolichol	Golgi apparatus	C55H94N2O37P2	-2
m4macchitppdol	(alpha-D-Mannosyl)4-beta-D-mannosyl-diacetylchitobiosyldiphosphodolichol	Golgi apparatus	C61H104N2O42P2	-2
macchitppdol	beta-D-Mannosyldiacetylchitobiosyldiphosphodolichol	Golgi apparatus	C37H64N2O22P2	-2
mal-L	L-Malate	cytosol	C4H4O5	-2
mal-L	L-Malate	extracellular	C4H4O5	-2
mal-L	L-Malate	mitochondrion	C4H4O5	-2
mal-L	L-Malate	peroxisome	C4H4O5	-2
malACP	Malonyl-[acyl-carrier protein]	cytosol	C14H22N2O10PRS	-2
malACP	Malonyl-[acyl-carrier protein]	mitochondrion	C14H22N2O10PRS	-2
malcoa	Malonyl-CoA	cytosol	C24H33N7O19P3S	-5
malcoa	Malonyl-CoA	mitochondrion	C24H33N7O19P3S	-5
malt	Maltose	cytosol	C12H22O11	0
malt	Maltose	extracellular	C12H22O11	0
man	D-Mannose	cytosol	C6H12O6	0
man	D-Mannose	extracellular	C6H12O6	0
man1p	D-Mannose 1-phosphate	cytosol	C6H11O9P	-2
man6p	D-Mannose 6-phosphate	cytosol	C6H11O9P	-2
mannan	Mannan	cytosol	C6H10O5	0
mannan	Mannan	endoplasmic reticulum	C6H10O5	0
melib	Melibiose	cytosol	C12H22O11	0
melib	Melibiose	extracellular	C12H22O11	0
melt	melibitol	cytosol	C12H24O11	0
met-L	L-Methionine	cytosol	C5H11NO2S	0
met-L	L-Methionine	extracellular	C5H11NO2S	0
met-L	L-Methionine	mitochondrion	C5H11NO2S	0
methf	5,10-Methenyltetrahydrofolate	cytosol	C20H20N7O6	-1
methf	5,10-Methenyltetrahydrofolate	mitochondrion	C20H20N7O6	-1
mettrna	L-Methionyl-tRNA (Met)	cytosol	C5H10NOSR	1
mettrna	L-Methionyl-tRNA (Met)	mitochondrion	C5H10NOSR	1
mev-R	(R)-Mevalonate	cytosol	C6H11O4	-1
mhpglu	5-Methyltetrahydropteroyltri-L-glutamate	cytosol	C25H36N8O12	0
mi145tp-D	1D-myo-Inositol 1,4,5-trisphosphate	cytosol	C6H9O15P3	-6
mi1p-D	1D-myo-Inositol 1-phosphate	cytosol	C6H11O9P	-2
* mip2c124_SC	mannose-(inositol-P)2-ceramide, ceramide-1 (24C), yeast-specific	cytosol	C6000H11500N100O240 0P200	-200
* mip2c126_SC	mannose-(inositol-P)2-ceramide, ceramide-1 (26C), yeast-specific	cytosol	C6200H11900N100O240 0P200	-200
* mip2c224_SC	mannose-(inositol-P)2-ceramide, ceramide-2 (24C), yeast-specific	cytosol	C6000H11500N100O250 0P200	-200
* mip2c226_SC	mannose-(inositol-P)2-ceramide, ceramide-2 (26C), yeast-specific	cytosol	C6200H11900N100O250 0P200	-200
* mip2c324_SC	mannose-(inositol-P)2-ceramide, ceramide-3 (24C), yeast-specific	cytosol	C6000H11500N100O260 0P200	-200
* mip2c326_SC	mannose-(inositol-P)2-ceramide, ceramide-3 (26C), yeast-specific	cytosol	C6200H11900N100O260 0P200	-200
* mipc124_SC	mannose-inositol phosphorylceramide, ceramide-1 (24C), yeast-specific	cytosol	C5400H10500N100O160 0P100	-100
* mipc126_SC	mannose-inositol phosphorylceramide, ceramide-1 (26C), yeast-specific	cytosol	C5600H10900N100O160 0P100	-100
* mipc224_SC	mannose-inositol phosphorylceramide, ceramide-2 (24C), yeast-specific	cytosol	C5400H10500N100O170 0P100	-100
* mipc226_SC	mannose-inositol phosphorylceramide, ceramide-2 (26C), yeast-specific	cytosol	C5600H10900N100O170 0P100	-100

* mipc324_SC	mannose-inositol phosphorylceramide, ceramide-3 (24C), yeast-specific	cytosol	C5400H10500N100O180 0P100	-100
* mipc326_SC	mannose-inositol phosphorylceramide, ceramide-3 (26C)	cytosol	C5600H10900N100O180 0P100	-100
mlthf	5,10-Methylenetetrahydrofolate	cytosol	C20H22N7O6	-1
mlthf	5,10-Methylenetetrahydrofolate	mitochondrion	C20H22N7O6	-1
mmet	S-Methyl-L-methionine	cytosol	C6H14NO2S	1
mmet	S-Methyl-L-methionine	extracellular	C6H14NO2S	1
mn1p	D-Mannitol 1-phosphate	cytosol	C6H13O9P	-2
mthglx	Methylglyoxal	cytosol	C3H4O2	0
myrsACP	Myristoyl-ACP (n-C14:0ACP)	cytosol	C25H47N2O8PRS	-1
myrsACP	Myristoyl-ACP (n-C14:0ACP)	mitochondrion	C25H47N2O8PRS	-1
n4abutn	N4-Acetylaminobutanal	cytosol	C6H11NO2	0
na1	Sodium	cytosol	Na	1
na1	Sodium	extracellular	Na	1
nac	Nicotinate	cytosol	C6H4NO2	-1
nac	Nicotinate	mitochondrion	C6H4NO2	-1
nad	Nicotinamide adenine dinucleotide	cytosol	C21H26N7O14P2	-1
nad	Nicotinamide adenine dinucleotide	mitochondrion	C21H26N7O14P2	-1
nad	Nicotinamide adenine dinucleotide	peroxisome	C21H26N7O14P2	-1
nadh	Nicotinamide adenine dinucleotide - reduced	cytosol	C21H27N7O14P2	-2
nadh	Nicotinamide adenine dinucleotide - reduced	mitochondrion	C21H27N7O14P2	-2
nadh	Nicotinamide adenine dinucleotide - reduced	peroxisome	C21H27N7O14P2	-2
nadp	Nicotinamide adenine dinucleotide phosphate	cytosol	C21H25N7O17P3	-3
nadp	Nicotinamide adenine dinucleotide phosphate	mitochondrion	C21H25N7O17P3	-3
nadp	Nicotinamide adenine dinucleotide phosphate	endoplasmic reticulum	C21H25N7O17P3	-3
nadp	Nicotinamide adenine dinucleotide phosphate	peroxisome	C21H25N7O17P3	-3
nadph	Nicotinamide adenine dinucleotide phosphate - reduced	cytosol	C21H26N7O17P3	-4
nadph	Nicotinamide adenine dinucleotide phosphate - reduced	mitochondrion	C21H26N7O17P3	-4
nadph	Nicotinamide adenine dinucleotide phosphate - reduced	endoplasmic reticulum	C21H26N7O17P3	-4
nadph	Nicotinamide adenine dinucleotide phosphate - reduced	peroxisome	C21H26N7O17P3	-4
ncam	Nicotinamide	cytosol	C6H6N2O	0
ncam	Nicotinamide	mitochondrion	C6H6N2O	0
nh4	Ammonium	cytosol	H4N	1
nh4	Ammonium	extracellular	H4N	1
nh4	Ammonium	mitochondrion	H4N	1
nh4	Ammonium	peroxisome	H4N	1
nicrt	Nicotinate D-ribonucleotide	cytosol	C11H12NO9P	-2
nicrt	Nicotinate D-ribonucleotide	mitochondrion	C11H12NO9P	-2
nmn	NMN	cytosol	C11H14N2O8P	-1
nmn	NMN	extracellular	C11H14N2O8P	-1
nmn	NMN	mitochondrion	C11H14N2O8P	-1
nmn	NMN	peroxisome	C11H14N2O8P	-1
o2	O2	cytosol	O2	0
o2	O2	extracellular	O2	0
o2	O2	mitochondrion	O2	0
o2	O2	endoplasmic reticulum	O2	0
o2	O2	peroxisome	O2	0
oaa	Oxaloacetate	cytosol	C4H2O5	-2
oaa	Oxaloacetate	mitochondrion	C4H2O5	-2
oaa	Oxaloacetate	peroxisome	C4H2O5	-2
ocACP	Octanoyl-ACP (n-C8:0ACP)	mitochondrion	C19H35N2O8PRS	-1
occoa	Octanoyl-CoA (n-C8:0CoA)	cytosol	C29H46N7O17P3S	-4
occoa	Octanoyl-CoA (n-C8:0CoA)	peroxisome	C29H46N7O17P3S	-4
ocdca	octadecanoate (n-C18:0)	cytosol	C18H35O2	-1
ocdca	octadecanoate (n-C18:0)	extracellular	C18H35O2	-1
ocdcaACP	Octadecanoyl-ACP (n-C18:0ACP)	cytosol	C29H55N2O8PRS	-1
ocdcaACP	Octadecanoyl-ACP (n-C18:0ACP)	mitochondrion	C29H55N2O8PRS	-1
ocdcea	octadecenoate (n-C18:1)	cytosol	C18H33O2	-1
ocdcea	octadecenoate (n-C18:1)	extracellular	C18H33O2	-1
ocdcya	octadecynoate (n-C18:2)	cytosol	C18H31O2	-1
ocdcya	octadecynoate (n-C18:2)	extracellular	C18H31O2	-1
ocdcyaACP	Octadecynoyl-ACP (n-C18:2ACP)	cytosol	C29H51N2O8PRS	-1
ocdcyaACP	Octadecynoyl-ACP (n-C18:2ACP)	mitochondrion	C29H51N2O8PRS	-1

ocdycacoa	Octadecynoyl-CoA (n-C18:2CoA)	cytosol	C39H62N7O17P3S	-4
ocdycacoa	Octadecynoyl-CoA (n-C18:2CoA)	peroxisome	C39H62N7O17P3S	-4
octa	octanoate (n-C8:0)	cytosol	C8H15O2	-1
octa	octanoate (n-C8:0)	peroxisome	C8H15O2	-1
octdp_5	all-trans-Octaprenyl diphosphate (5 repeating units)	cytosol	C30H49O7P2	-3
octdp_5	all-trans-Octaprenyl diphosphate (5 repeating units)	mitochondrion	C30H49O7P2	-3
octeACP	Octadecenoyl-ACP (n-C18:1ACP)	cytosol	C29H53N2O8PRS	-1
octeACP	Octadecenoyl-ACP (n-C18:1ACP)	mitochondrion	C29H53N2O8PRS	-1
od2coa	trans-Octadec-2-enoyl-CoA	peroxisome	C39H64N7O17P3S	-4
odecoa	Octadecenoyl-CoA (n-C18:1CoA)	cytosol	C39H64N7O17P3S	-4
odecoa	Octadecenoyl-CoA (n-C18:1CoA)	peroxisome	C39H64N7O17P3S	-4
oh1	hydroxide ion	cytosol	HO	-1
oh1	hydroxide ion	mitochondrion	HO	-1
ohpb	2-Oxo-3-hydroxy-4-phosphobutanoate	cytosol	C4H4O8P	-3
orn	Ornithine	cytosol	C5H13N2O2	1
orn	Ornithine	extracellular	C5H13N2O2	1
orn	Ornithine	mitochondrion	C5H13N2O2	1
orot	Orotate	cytosol	C5H3N2O4	-1
orot5p	Orotidine 5'-phosphate	cytosol	C10H10N2O11P	-3
oxag	Oxaloglutarate	cytosol	C7H5O7	-3
oxag	Oxaloglutarate	mitochondrion	C7H5O7	-3
* pa_SC	Phosphatidate, yeast-specific	cytosol	C3540H6544O800P100	-200
* pa_SC	Phosphatidate, yeast-specific	mitochondrion	C3540H6544O800P100	-200
pac	Phenylacetic acid	cytosol	C8H7O2	-1
pacald	Phenylacetaldehyde	cytosol	C8H8O	0
pad	2-Phenylacetamide	cytosol	C8H9NO	0
palmACP	Palmitoyl-ACP (n-C16:0ACP)	cytosol	C27H51N2O8PRS	-1
palmACP	Palmitoyl-ACP (n-C16:0ACP)	mitochondrion	C27H51N2O8PRS	-1
pan4p	Pantetheine 4'-phosphate	cytosol	C11H21N2O7PS	-2
pan4p	Pantetheine 4'-phosphate	mitochondrion	C11H21N2O7PS	-2
pant-R	(R)-Pantoate	cytosol	C6H11O4	-1
pant-R	(R)-Pantoate	mitochondrion	C6H11O4	-1
pap	Adenosine 3',5'-bisphosphate	cytosol	C10H11N5O10P2	-4
pap	Adenosine 3',5'-bisphosphate	extracellular	C10H11N5O10P2	-4
pap	Adenosine 3',5'-bisphosphate	mitochondrion	C10H11N5O10P2	-4
paps	3'-Phosphoadenylyl sulfate	cytosol	C10H11N5O13P2S	-4
* pc_SC	Phosphatidylcholine, yeast-specific	cytosol	C4040H7844N100O800P100	0
pdx5p	Pyridoxine 5'-phosphate	cytosol	C8H10NO6P	-2
* pe_SC	phosphatidylethanolamine, yeast-specific	cytosol	C3740H7244N100O800P100	0
* pe_SC	phosphatidylethanolamine, yeast-specific	Golgi apparatus	C3740H7244N100O800P100	0
* pe_SC	phosphatidylethanolamine, yeast-specific	mitochondrion	C3740H7244N100O800P100	0
* pe_SC	phosphatidylethanolamine, yeast-specific	vacuole	C3740H7244N100O800P100	0
pep	Phosphoenolpyruvate	cytosol	C3H2O6P	-3
pep	Phosphoenolpyruvate	mitochondrion	C3H2O6P	-3
pepd	peptide	cytosol	C2H4NO2RC2H2NOR	0
pepd	peptide	extracellular	C2H4NO2RC2H2NOR	0
* pg_SC	Phosphatidylglycerol, yeast-specific	mitochondrion	C3840H7244O1000P100	-100
* pgg_SC	Phosphatidylglycerophosphate, yeast-specific	mitochondrion	C3840H7144O1300P200	-300
phe-L	L-Phenylalanine	cytosol	C9H11NO2	0
phe-L	L-Phenylalanine	extracellular	C9H11NO2	0
phe-L	L-Phenylalanine	mitochondrion	C9H11NO2	0
pHEME	Protoheme	mitochondrion	C34H30FeN4O4	-2
phetrna	L-Phenylalanyl-tRNA(Phe)	cytosol	C9H10NOR	1
phetrna	L-Phenylalanyl-tRNA(Phe)	mitochondrion	C9H10NOR	1
phom	O-Phospho-L-homoserine	cytosol	C4H8NO6P	-2
phpyr	Phenylpyruvate	cytosol	C9H7O3	-1
phthr	O-Phospho-4-hydroxy-L-threonine	cytosol	C4H8NO7P	-2
pi	Phosphate	cytosol	HO4P	-2
pi	Phosphate	extracellular	HO4P	-2
pi	Phosphate	Golgi apparatus	HO4P	-2
pi	Phosphate	mitochondrion	HO4P	-2

pi	Phosphate	nucleus	HO4P	-2
pi	Phosphate	vacuole	HO4P	-2
pi	Phosphate	peroxisome	HO4P	-2
pmtcoa	Palmitoyl-CoA (n-C16:0CoA)	cytosol	C37H62N7O17P3S	-4
pmtcoa	Palmitoyl-CoA (n-C16:0CoA)	peroxisome	C37H62N7O17P3S	-4
pnto-R	(R)-Pantothenate	cytosol	C9H16NO5	-1
pnto-R	(R)-Pantothenate	extracellular	C9H16NO5	-1
ppbng	Porphobilinogen	cytosol	C10H13N2O4	-1
ppcoa	Propanoyl-CoA	cytosol	C24H36N7O17P3S	-4
pphn	Prephenate	cytosol	C10H8O6	-2
ppi	Diphosphate	cytosol	HO7P2	-3
ppi	Diphosphate	mitochondrion	HO7P2	-3
ppi	Diphosphate	peroxisome	HO7P2	-3
ppp9	Protoporphyrin	mitochondrion	C34H32N4O4	-2
pppg9	Protoporphyrinogen IX	cytosol	C34H38N4O4	-2
pppg9	Protoporphyrinogen IX	mitochondrion	C34H38N4O4	-2
pram	5-Phospho-beta-D-ribosylamine	cytosol	C5H11NO7P	-1
pran	N-(5-Phospho-D-ribosyl)anthranilate	cytosol	C12H13NO9P	-3
prbamp	1-(5-Phosphoribosyl)-AMP	cytosol	C15H19N5O14P2	-4
prbatp	1-(5-Phosphoribosyl)-ATP	cytosol	C15H19N5O20P4	-6
prfp	1-(5-Phosphoribosyl)-5-[(5-phosphoribosylamino)methylideneamino]imidazole-4-carboxamide	cytosol	C15H21N5O15P2	-4
prlp	5-[(5-phospho-1-deoxyribulos-1-ylamino)methylideneamino]-1-(5-phosphoribosyl)imidazole-4-carboxamide	cytosol	C15H21N5O15P2	-4
pro-L	L-Proline	cytosol	C5H9NO2	0
pro-L	L-Proline	extracellular	C5H9NO2	0
pro-L	L-Proline	mitochondrion	C5H9NO2	0
protrna	L-Prolyl-tRNA(Pro)	cytosol	C5H8NOR	1
prpp	5-Phospho-alpha-D-ribose 1-diphosphate	cytosol	C5H8O14P3	-5
prpp	5-Phospho-alpha-D-ribose 1-diphosphate	mitochondrion	C5H8O14P3	-5
* ps_SC	phosphatidylserine, yeast-specific	cytosol	C3840H7144N100O1000P100	-100
* ps_SC	phosphatidylserine, yeast-specific	Golgi apparatus	C3840H7144N100O1000P100	-100
* ps_SC	phosphatidylserine, yeast-specific	mitochondrion	C3840H7144N100O1000P100	-100
* ps_SC	phosphatidylserine, yeast-specific	vacuole	C3840H7144N100O1000P100	-100
psd5p	Pseudouridine 5'-phosphate	cytosol	C9H11N2O9P	-2
pser-L	O-Phospho-L-serine	cytosol	C3H6NO6P	-2
psph1p	Phytosphingosine 1-phosphate	cytosol	C18H39NO6P	-1
psphings	Phytosphingosine	cytosol	C18H40NO3	1
* ptd134bp_SC	phosphatidyl-1D-myo-inositol 3,4-bisphosphate, yeast-specific	cytosol	C4140H7444O1900P300	-500
* ptd145bp_SC	1-Phosphatidyl-D-myo-inositol 4,5-bisphosphate, yeast-specific	cytosol	C4140H7444O1900P300	-500
* ptd1ino_SC	phosphatidyl-1D-myo-inositol, yeast-specific	cytosol	C4140H7644O1300P100	-100
* ptd1ino_SC	phosphatidyl-1D-myo-inositol, yeast-specific	nucleus	C4140H7644O1300P100	-100
* ptd2meeta_SC	Phosphatidyl-N-dimethylethanolamine	cytosol	C3940H7644N100O800P100	0
* ptd3ino_SC	phosphatidyl-1D-myo-3-inositol, yeast-specific	cytosol	C4140H7544O1600P200	-300
* ptd4ino_SC	phosphatidyl-1D-myo-4-inositol, yeast specific	cytosol	C4140H7544O1600P200	-300
* ptd4ino_SC	phosphatidyl-1D-myo-4-inositol, yeast specific	nucleus	C4140H7544O1600P200	-300
* ptdmeeta_SC	Phosphatidyl-N-methylethanolamine, yeast-specific	cytosol	C3840H7444N100O800P100	0
ptrc	Putrescine	cytosol	C4H14N2	2
ptrc	Putrescine	extracellular	C4H14N2	2
pyam5p	Pyridoxamine 5'-phosphate	cytosol	C8H12N2O5P	-1
pydam	Pyridoxamine	cytosol	C8H13N2O2	1
pydx	Pyridoxal	cytosol	C8H9NO3	0
pydx5p	Pyridoxal 5'-phosphate	cytosol	C8H8NO6P	-2
pydxn	Pyridoxine	cytosol	C8H11NO3	0
pyr	Pyruvate	cytosol	C3H3O3	-1
pyr	Pyruvate	extracellular	C3H3O3	-1
pyr	Pyruvate	mitochondrion	C3H3O3	-1
pyr	Pyruvate	peroxisome	C3H3O3	-1

q6	Ubiquinone-6	mitochondrion	C39H58O4	0
q6h2	Ubiquinol-6	mitochondrion	C39H60O4	0
quin	Quinolate	cytosol	C7H3NO4	-2
quln	Quinolate	mitochondrion	C7H3NO4	-2
r1p	alpha-D-Ribose 1-phosphate	cytosol	C5H9O8P	-2
r1p	alpha-D-Ribose 1-phosphate	mitochondrion	C5H9O8P	-2
r5p	alpha-D-Ribose 5-phosphate	cytosol	C5H9O8P	-2
raffin	Raffinose	cytosol	C18H32O16	0
rib-D	D-Ribose	cytosol	C5H10O5	0
rib-D	D-Ribose	extracellular	C5H10O5	0
ribflv	Riboflavin	cytosol	C17H20N4O6	0
ribflv	Riboflavin	extracellular	C17H20N4O6	0
ribflv	Riboflavin	mitochondrion	C17H20N4O6	0
ru5p-D	D-Ribulose 5-phosphate	cytosol	C5H9O8P	-2
s	Sulfur	cytosol	S	0
s17bp	Sedoheptulose 1,7-bisphosphate	cytosol	C7H12O13P2	-4
s7p	Sedoheptulose 7-phosphate	cytosol	C7H13O10P	-2
sacrp-L	L-Saccharopine	cytosol	C11H19N2O6	-1
sbt-D	D-Sorbitol	cytosol	C6H14O6	0
sbt-D	D-Sorbitol	extracellular	C6H14O6	0
sbt-L	L-Sorbitol	cytosol	C6H14O6	0
sbt-L	L-Sorbitol	extracellular	C6H14O6	0
sdhiam	S-Succinylidihydroliipoamide	mitochondrion	C12H20N04S2	-1
ser-L	L-Serine	cytosol	C3H7NO3	0
ser-L	L-Serine	extracellular	C3H7NO3	0
ser-L	L-Serine	mitochondrion	C3H7NO3	0
sertrna	L-Seryl-tRNA(Ser)	cytosol	C3H6NO2R	1
shcl	Sirohydrochlorin	cytosol	C42H41N4O16	-7
skm	Shikimate	cytosol	C7H9O5	-1
skm5p	Shikimate 5-phosphate	cytosol	C7H8O8P	-3
so3	Sulfite	cytosol	O3S	-2
so4	Sulfate	cytosol	O4S	-2
so4	Sulfate	extracellular	O4S	-2
sph1p	Sphinganine 1-phosphate	cytosol	C18H39NO5P	-1
sphgn	Sphinganine	cytosol	C18H40NO2	1
spmd	Spermidine	cytosol	C7H22N3	3
spmd	Spermidine	extracellular	C7H22N3	3
sprm	Spermine	cytosol	C10H30N4	4
sprm	Spermine	extracellular	C10H30N4	4
sql	Squalene	cytosol	C30H50	0
sql	Squalene	endoplasmic reticulum	C30H50	0
srb-L	L-Sorbose	cytosol	C6H12O6	0
srb-L	L-Sorbose	extracellular	C6H12O6	0
stcoa	Stearoyl-CoA (n-C18:0CoA)	cytosol	C39H66N7O17P3S	-4
stcoa	Stearoyl-CoA (n-C18:0CoA)	peroxisome	C39H66N7O17P3S	-4
succ	Succinate	cytosol	C4H4O4	-2
succ	Succinate	extracellular	C4H4O4	-2
succ	Succinate	mitochondrion	C4H4O4	-2
succoa	Succinyl-CoA	mitochondrion	C25H35N7O19P3S	-5
suchms	O-Succinyl-L-homoserine	cytosol	C8H12NO6	-1
sucr	Sucrose	cytosol	C12H22O11	0
sucr	Sucrose	extracellular	C12H22O11	0
sucsal	Succinic semialdehyde	cytosol	C4H5O3	-1
tag6p-D	D-Tagatose 6-phosphate	cytosol	C6H11O9P	-2
tagdp-D	D-Tagatose 1,6-biphosphate	cytosol	C6H10O12P2	-4
td2coa	trans-Tetradec-2-enoyl-CoA	peroxisome	C35H56N7O17P3S	-4
tdcoa	Tetradecanoyl-CoA (n-C14:0CoA)	cytosol	C35H58N7O17P3S	-4
tdcoa	Tetradecanoyl-CoA (n-C14:0CoA)	peroxisome	C35H58N7O17P3S	-4
tdeACP	Tetradecenoyl-ACP (n-C14:1ACP)	cytosol	C25H45N2O8PRS	-1
tdeACP	Tetradecenoyl-ACP (n-C14:1ACP)	mitochondrion	C25H45N2O8PRS	-1
tdecoa	Tetradecenoyl-CoA (n-C14:1CoA)	cytosol	C35H56N7O17P3S	-4
tdecoa	Tetradecenoyl-CoA (n-C14:1CoA)	peroxisome	C35H56N7O17P3S	-4
tglp	N-Tetradecanoylglycylpeptide	cytosol	C18H32N2O4R	0
thf	5,6,7,8-Tetrahydrofolate	cytosol	C19H22N7O6	-1
thf	5,6,7,8-Tetrahydrofolate	mitochondrion	C19H22N7O6	-1
thfglu	Tetrahydrofolyl-[Glu](2)	cytosol	C24H28N8O9	-2
thm	Thiamin	cytosol	C12H17N4OS	1
thm	Thiamin	extracellular	C12H17N4OS	1

thmmp	Thiamin monophosphate	cytosol	C12H16N4O4PS	-1
thmmp	Thiamin monophosphate	extracellular	C12H16N4O4PS	-1
thmpp	Thiamine diphosphate	cytosol	C12H16N4O7P2S	-2
thmpp	Thiamine diphosphate	extracellular	C12H16N4O7P2S	-2
thmtp	Thiamin triphosphate	cytosol	C12H16N4O10P3S	-3
thr-L	L-Threonine	cytosol	C4H9NO3	0
thr-L	L-Threonine	extracellular	C4H9NO3	0
thr-L	L-Threonine	mitochondrion	C4H9NO3	0
thrtRNA	L-Threonyl-tRNA(Thr)	cytosol	C4H8NO2R	1
thrtRNA	L-Threonyl-tRNA(Thr)	mitochondrion	C4H8NO2R	1
thym	Thymine	cytosol	C5H6N2O2	0
thym	Thymine	extracellular	C5H6N2O2	0
thymd	Thymidine	cytosol	C10H14N2O5	0
thymd	Thymidine	extracellular	C10H14N2O5	0
trdox	Oxidized thioredoxin	cytosol	X	0
trdox	Oxidized thioredoxin	mitochondrion	X	0
trdox	Oxidized thioredoxin	nucleus	X	0
trdrd	Reduced thioredoxin	cytosol	XH2	0
trdrd	Reduced thioredoxin	mitochondrion	XH2	0
trdrd	Reduced thioredoxin	nucleus	XH2	0
tre	Trehalose	cytosol	C12H22O11	0
tre	Trehalose	extracellular	C12H22O11	0
tre	Trehalose	vacuole	C12H22O11	0
tre6p	alpha,alpha'-Trehalose 6-phosphate	cytosol	C12H21O14P	-2
* triglyc_SC	triglyceride, yeast-specific	cytosol	C5160H9566O600	0
trnaala	tRNA(Ala)	cytosol	R	0
trnaarg	tRNA(Arg)	cytosol	R	0
trnaarg	tRNA(Arg)	mitochondrion	R	0
trnaasn	tRNA(Asn)	cytosol	R	0
trnaasn	tRNA(Asn)	mitochondrion	R	0
trnaasp	tRNA(Asp)	cytosol	R	0
trnaasp	tRNA(Asp)	mitochondrion	R	0
trnacys	tRNA(Cys)	cytosol	R	0
trnagln	tRNA(Gln)	cytosol	R	0
trnaglu	tRNA(Glu)	cytosol	R	0
trnaglu	tRNA(Glu)	mitochondrion	R	0
trnagly	tRNA(Gly)	cytosol	R	0
trnahis	tRNA(His)	cytosol	R	0
trnahis	tRNA(His)	mitochondrion	R	0
trnaile	tRNA(Ile)	cytosol	R	0
trnaile	tRNA(Ile)	mitochondrion	R	0
trnaleu	tRNA(Leu)	cytosol	R	0
trnaleu	tRNA(Leu)	mitochondrion	R	0
trnaly	tRNA(Lys)	cytosol	R	0
trnaly	tRNA(Lys)	mitochondrion	R	0
trnamet	tRNA(Met)	cytosol	R	0
trnamet	tRNA(Met)	mitochondrion	R	0
trnaphe	tRNA(Phe)	cytosol	R	0
trnaphe	tRNA(Phe)	mitochondrion	R	0
trnapro	tRNA(Pro)	cytosol	R	0
trnaser	tRNA(Ser)	cytosol	R	0
trnathr	tRNA(Thr)	cytosol	R	0
trnathr	tRNA(Thr)	mitochondrion	R	0
trnatrp	tRNA(Trp)	cytosol	R	0
trnatrp	tRNA(Trp)	mitochondrion	R	0
trnatyr	tRNA(Tyr)	cytosol	R	0
trnatyr	tRNA(Tyr)	mitochondrion	R	0
trnaval	tRNA(Val)	cytosol	R	0
trnaval	tRNA(Val)	mitochondrion	R	0
trp-L	L-Tryptophan	cytosol	C11H12N2O2	0
trp-L	L-Tryptophan	extracellular	C11H12N2O2	0
trp-L	L-Tryptophan	mitochondrion	C11H12N2O2	0
trptRNA	L-Tryptophanyl-tRNA(Trp)	cytosol	C11H11N2OR	1
trptRNA	L-Tryptophanyl-tRNA(Trp)	mitochondrion	C11H11N2OR	1
ttc	tetracosanoate (n-C24:0)	cytosol	C24H47O2	-1
ttc	tetracosanoate (n-C24:0)	peroxisome	C24H47O2	-1
ttcoa	tetracosanoyl-CoA (n-C24:0CoA)	cytosol	C45H78N7O17P3S	-4
ttcoa	tetracosanoyl-CoA (n-C24:0CoA)	peroxisome	C45H78N7O17P3S	-4

ttdca	tetradecanoate (n-C14:0)	cytosol	C14H27O2	-1
ttdca	tetradecanoate (n-C14:0)	extracellular	C14H27O2	-1
ttdca	tetradecanoate (n-C14:0)	peroxisome	C14H27O2	-1
ttdcea	tetradecenoate (n-C14:1)	cytosol	C14H25O2	-1
ttdcea	tetradecenoate (n-C14:1)	peroxisome	C14H25O2	-1
tyr-L	L-Tyrosine	cytosol	C9H11NO3	0
tyr-L	L-Tyrosine	extracellular	C9H11NO3	0
tyr-L	L-Tyrosine	mitochondrion	C9H11NO3	0
tyr-L	L-Tyrosine	peroxisome	C9H11NO3	0
tyrtRNA	L-Tyrosyl-tRNA(Tyr)	cytosol	C9H10NO2R	1
tyrtRNA	L-Tyrosyl-tRNA(Tyr)	mitochondrion	C9H10NO2R	1
udp	UDP	cytosol	C9H11N2O12P2	-3
udp	UDP	nucleus	C9H11N2O12P2	-3
udpacgal	UDP-N-acetyl-D-galactosamine	cytosol	C17H25N3O17P2	-2
udpg	UDPglucose	cytosol	C15H22N2O17P2	-2
udpgal	UDPgalactose	cytosol	C15H22N2O17P2	-2
ump	UMP	cytosol	C9H11N2O9P	-2
ump	UMP	nucleus	C9H11N2O9P	-2
uppg3	Uroporphyrinogen III	cytosol	C40H36N4O16	-8
ura	Uracil	cytosol	C4H4N2O2	0
ura	Uracil	extracellular	C4H4N2O2	0
urdglyc	(-)-Ureidoglycolate	cytosol	C3H5N2O4	-1
urea	Urea	cytosol	CH4N2O	0
urea	Urea	extracellular	CH4N2O	0
uri	Uridine	cytosol	C9H12N2O6	0
uri	Uridine	extracellular	C9H12N2O6	0
utp	UTP	cytosol	C9H11N2O15P3	-4
val-L	L-Valine	cytosol	C5H11NO2	0
val-L	L-Valine	extracellular	C5H11NO2	0
val-L	L-Valine	mitochondrion	C5H11NO2	0
valtrna	L-Valyl-tRNA(Val)	cytosol	C5H10NOR	1
valtrna	L-Valyl-tRNA(Val)	mitochondrion	C5H10NOR	1
xan	Xanthine	cytosol	C5H4N4O2	0
xan	Xanthine	extracellular	C5H4N4O2	0
xmp	Xanthosine 5'-phosphate	cytosol	C10H11N4O9P	-2
xtsn	Xanthosine	cytosol	C10H12N4O6	0
xtsn	Xanthosine	extracellular	C10H12N4O6	0
xu5p-D	D-Xylulose 5-phosphate	cytosol	C5H9O8P	-2
xyl-D	D-Xylose	cytosol	C5H10O5	0
xyl-D	D-Xylose	extracellular	C5H10O5	0
xylt	Xylitol	cytosol	C5H12O5	0
xylt	Xylitol	extracellular	C5H12O5	0
xylu-D	D-Xylulose	cytosol	C5H10O5	0
zym_int1	zymosterol intermediate 1	cytosol	C28H44O3	0
zym_int2	zymosterol intermediate 2	cytosol	C27H42O	0
zymst	zymosterol	cytosol	C27H44O	0
zymst	zymosterol	extracellular	C27H44O	0

* Metabolite represents 100 copies of this compound. For reactions involving this metabolite, the stoichiometric coefficients have been appropriately scaled (e.g. , 1/100 or 2/100).