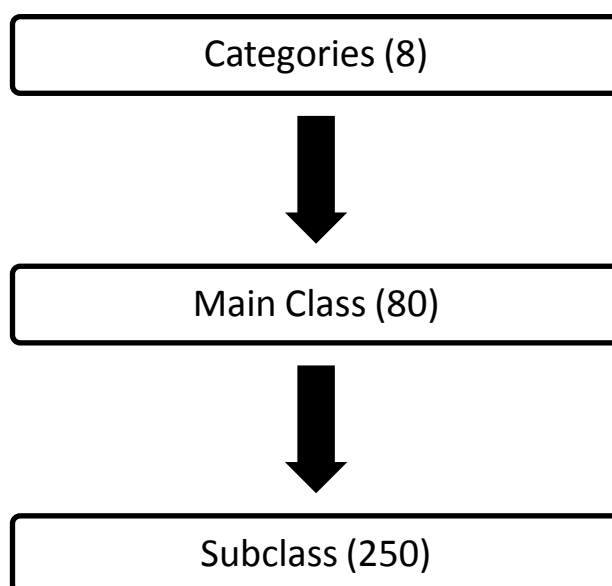


10. Search within Main Class and/or Subclass

This option in MS-LAMP can be used to focus the search to a specific lipid class. The lipids in General and *Mycobacterium tuberculosis* (*M. tb*) Lipidome MS-LAMP databases are categorised as shown in [Scheme 10.1](#), which follows the convention of LIPID MAPS Consortium (www.lipidmaps.org).



Scheme 10.1: Hierarchy of lipid classification

In order to focus the search to a particular Main Class and/or Subclass of lipids, it is essential to understand the codes defined by LIPID MAPS to address categories, main classes and subclasses; these are summarized in [Tables 10.1](#), [10.2](#) and [10.3](#).

[Tables 10.1](#) and [10.2](#) show eight-category classification of lipids, abbreviations for the categories and the number of Main Classes and Subclasses in every category for General and *M. tb* Lipidome MS-LAMP, respectively.

[Table 10.3](#) describes the format for denoting the LIPID MAPS identifier (LM ID)

Table 10.1: Eight-category classification of Lipids (General Lipidome MS-LAMP)

S.No.	Category	Abbreviation	Number of Main Classes	Number of Subclasses
1	Fatty Acids	FA	15	51
2	Glycerolipids	GL	6	14
3	Glycerophospholipid	GP	21	67
4	Polyketide	PK	15	28
5	Prenol Lipids	PR	4	19
6	Saccharolipids	SL	4	5
7	Sphingolipids	SP	9	30
8	Sterol Lipids	ST	5	39

Source: LIPID MAPS Consortium (www.lipidmaps.org)

Table 10.2: Eight-category classification of Lipids (*M. tb* Lipidome MS-LAMP)

S.No.	Category	Abbreviation	Number of Main Classes	Number of Subclasses
1	Fatty Acyls	FA	2	11
2	Glycerolipids	GL	3	3
3	Glycerophospholipids	GP	5	30
4	Polyketides	PK	1	2
5	Prenol Lipids	PR	2	4
6	Saccharolipids	SL	2	7
7	Sphingolipids	SP	0	0
8	Sterol Lipids	ST	0	0

Source: The Mycobacterium Research Laboratories, Colorado State University (www.mrl.colostate.edu)

Table 10.3: Format for unique twelve-character LIPID MAPS identifier (LM ID).

LIPID ID : LMFA02012012		
Characters	Description	Example
1 - 2	Database designation	LM
3 – 4	Category code	FA
5 - 6	Main Class code	02
7 - 8	Subclass code	01
9 – 12	unique four character identifier within subclass	2012

To search within a

1. **Main Class:** To target search specifically to a Main class, code specific to that class is to be entered in the text box. For example, the **Main Class** code for ‘Fatty Esters’ in the **Category, Fatty Acyls** (FA) is 07 (Refer Tables [10.3](#) and [10.4](#)). Therefore, to search within Fatty Esters, **FA07** may be entered. MS-LAMP will then interrogate specifically with lipids belonging to this class.
2. **Subclass:** To aim the search within a subclass, appropriate code meant for a subclass is to be entered in the text box. For instance, information on Ceramide phosphocholines (sphingomyelins) can be obtained by entering SP0301, which corresponds to **Category:** SP, **Main Class code:** 03 and **Subclass code:** 01 (Refer Tables [10.3](#), [10.10](#) and Figure [10.1](#)).

This search option is available in Query Types 1, 2, 3 and 4.

[Figure 10.1](#) shows a snapshot of window that illustrates about searching within Main Class and/or Subclass. In this example, the query is directed specifically to “**Ceramide phosphocholines (sphingomyelins)**”; SP0301 is entered in the text box provided. [Figure 10.2](#) shows result of the query window for this input.

To know the details regarding codes meant for Main Classes and Subclasses in every category for General Lipidome MS-LAMP, refer Tables [10.4](#) - [10.11](#).

76 MS - LAMP - General Lipidome MS-LAMP - Query Type 3 : Molecular Mass or m/z range

Query Type 3 : Molecular Mass or m/z range

Lower limit Upper limit ☒ Monoisotopic ☐ Average

Choose Molecular Mass / Type of Ion

☐ Molecular Mass

Negative ions ☐ [M-H]⁻ ☐ [M+Cl]⁻ ☐ [M+HOAc-H]⁻ ☐ [M+Li-2H]⁻ ☐ [M+Na-2H]⁻ ☐ [M+K-2H]⁻

Positive ions ☒ [M+H]⁺ ☐ [M+NH₄]⁺ ☐ [M+Li]⁺ ☐ [M+Na]⁺ ☐ [M+K]⁺ ☐ [M+2Li-H]⁺ ☐ [M+2Na-H]⁺ ☐ [M+2K-H]⁺

Which Lipid(s) ?

☐ All eight categories [About lipid categories](#)

☐ FA ☐ GL ☐ GP ☐ PK ☐ PR ☐ SL ☐ SP ☐ ST

☐ All Phospholipids

☐ Sphingo ☐ Other Phosphorylated lipids (Excluding GP)

Glycerolipids [GL]

☐ Monoglycerides [MG] ☐ Diglycerides [DG] ☐ Triglycerides [TG] ☐ Other Glycerolipids

☐ Halogenated Lipids

☐ Sulphur containing lipids

☒ Search within Main Class and/or Subclass

[Need Help ?](#)

SUBMIT

Figure 10.1: Snapshot of the window of Query Type 3 of General Lipidome MS-LAMP, illustrating to search within Main Class and/or Subclass. As an example, here the search is aimed at ‘Ceramide phosphocholine’, which corresponds to the code SP0301 that is entered in the text box provided (shaded in pink colour). In an attempt, only a Main Class and/or a Subclass can be entered. This option is available in Query Types 1, 2, 3 and 4.

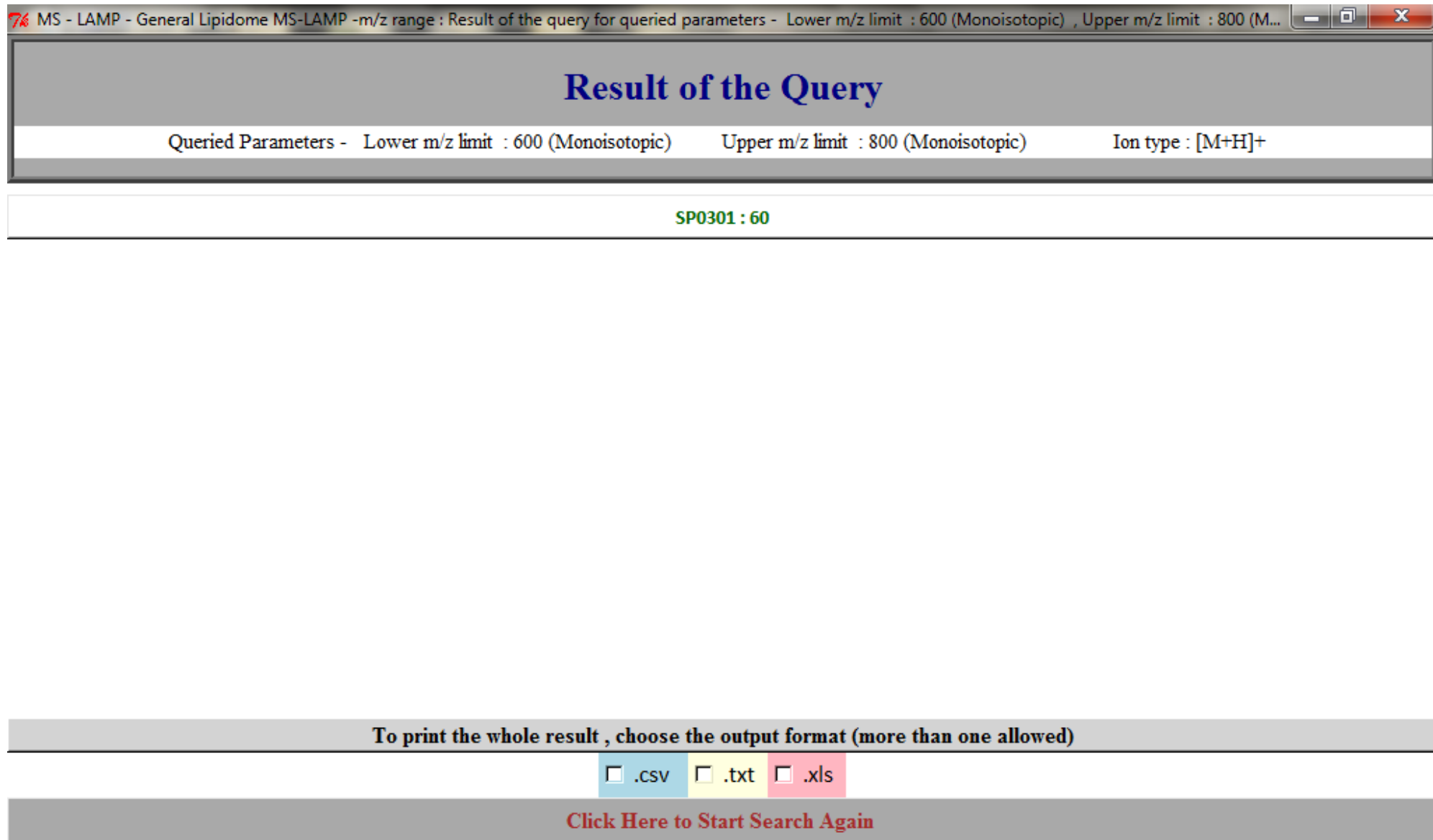


Figure 10.2: Result of the Query window showing number of lipids in subclass SP0301, corresponding to the input parameters queried, as depicted in [Figure 10.1](#).

Table 10.4: List of classes within **Fatty Acyls** belonging to **General Lipidome MS-LAMP**. Code shown in the bracket ([]) may be entered in the text box to search specifically within that class.

Category	Main Class	Sub Class
Fatty Acyls [FA]	Acyltrehaloses [SL03]	-
Fatty Acyls [FA]	Docosanoids [FA04]	-
Fatty Acyls [FA]	Eicosanoids [FA03]	Hydroxy/hydroperoxyeicosatrienoic acids [FA0305]
Fatty Acyls [FA]	Eicosanoids [FA03]	Clavulones and derivatives [FA0312]
Fatty Acyls [FA]	Eicosanoids [FA03]	Prostaglandins [FA0301]
Fatty Acyls [FA]	Eicosanoids [FA03]	Isoprostanes [FA0311]
Fatty Acyls [FA]	Eicosanoids [FA03]	Other Eicosanoids [FA0300]
Fatty Acyls [FA]	Eicosanoids [FA03]	Leukotrienes [FA0302]
Fatty Acyls [FA]	Eicosanoids [FA03]	Hydroxy/hydroperoxyeicosatetraenoic acids [FA0306]
Fatty Acyls [FA]	Eicosanoids [FA03]	Hydroxy/hydroperoxyeicosapentaenoic acids [FA0307]
Fatty Acyls [FA]	Eicosanoids [FA03]	Epoxyeicosatrienoic acids [FA0308]
Fatty Acyls [FA]	Eicosanoids [FA03]	Hepoxilins [FA0309]
Fatty Acyls [FA]	Eicosanoids [FA03]	Thromboxanes [FA0303]
Fatty Acyls [FA]	Eicosanoids [FA03]	Lipoxins [FA0304]
Fatty Acyls [FA]	Eicosanoids [FA03]	Levuglandins [FA0310]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Straight chain fatty acids [FA0101]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Unsaturated fatty acids [FA0103]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Oxo fatty acids [FA0106]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Branched fatty acids [FA0102]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Halogenated fatty acids [FA0109]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Hydroxy fatty acids [FA0105]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Amino fatty acids [FA0110]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Dicarboxylic acids [FA0117]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Carbocyclic fatty acids [FA0114]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Thia fatty acids [FA0113]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Heterocyclic fatty acids [FA0115]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Epoxy fatty acids [FA0107]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Methoxy fatty acids [FA0108]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Hydroperoxy fatty acids [FA0104]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Nitro fatty acids [FA0112]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Cyano fatty acids [FA0111]
Fatty Acyls [FA]	Fatty Acids and Conjugates [FA01]	Mycolic acids [FA0116]
Fatty Acyls [FA]	Fatty acyl glycosides [FA13]	Fatty acyl glycosides of mono- and disaccharides [FA1301]
Fatty Acyls [FA]	Fatty acyl glycosides [FA13]	Rhamnolipids [FA1303]

Fatty Acyls [FA]	Fatty acyl glycosides [FA13]	Sophorolipids [FA1302]
Fatty Acyls [FA]	Fatty alcohols [FA05]	-
Fatty Acyls [FA]	Fatty aldehydes [FA06]	-
Fatty Acyls [FA]	Fatty amides [FA08]	Primary amides [FA0801]
Fatty Acyls [FA]	Fatty amides [FA08]	N-acyl amines [FA0802]
Fatty Acyls [FA]	Fatty amides [FA08]	Fatty acyl homoserine lactones [FA0803]
Fatty Acyls [FA]	Fatty amides [FA08]	N-acyl ethanolamines (endocannabinoids) [FA0804]
Fatty Acyls [FA]	Fatty esters [FA07]	Lactones [FA0704]
Fatty Acyls [FA]	Fatty esters [FA07]	Wax monoesters [FA0701]
Fatty Acyls [FA]	Fatty esters [FA07]	Fatty acyl ACPs [FA0706]
Fatty Acyls [FA]	Fatty esters [FA07]	Fatty acyl carnitines [FA0707]
Fatty Acyls [FA]	Fatty esters [FA07]	Fatty acyl adenylates [FA0708]
Fatty Acyls [FA]	Fatty esters [FA07]	Cyano esters [FA0703]
Fatty Acyls [FA]	Fatty esters [FA07]	Wax diesters [FA0702]
Fatty Acyls [FA]	Fatty esters [FA07]	Fatty acyl CoAs [FA0705]
Fatty Acyls [FA]	Fatty ethers [FA10]	-
Fatty Acyls [FA]	Fatty nitriles [FA09]	-
Fatty Acyls [FA]	Hydrocarbons [FA11]	-
Fatty Acyls [FA]	Octadecanoids [FA02]	Jasmonic acids [FA0202]
Fatty Acyls [FA]	Octadecanoids [FA02]	12-oxophytodienoic acid metabolites [FA0201]
Fatty Acyls [FA]	Octadecanoids [FA02]	Other Octadecanoids [FA0200]
Fatty Acyls [FA]	Other Fatty Acyls [FA00]	-
Fatty Acyls [FA]	Oxygenated hydrocarbons [FA12]	-

Table 10.5: List of classes within **Glycerolipids** belonging to **General Lipidome MS-LAMP**. Code shown in the bracket ([]) may be entered in the text box to search specifically within that class.

Category	Main Class	Sub Class
Glycerolipids [GL]	Diradylglycerols [GL02]	Diacylglycerols [GL0201]
Glycerolipids [GL]	Diradylglycerols [GL02]	1Z-alkenylacylglycerols [GL0204]
Glycerolipids [GL]	Diradylglycerols [GL02]	Dialkylglycerols [GL0203]
Glycerolipids [GL]	Diradylglycerols [GL02]	1-alkyl,2-acylglycerols [GL0202]
Glycerolipids [GL]	Diradylglycerols [GL02]	1-acyl,2-alkylglycerols [GL0207]
Glycerolipids [GL]	Diradylglycerols [GL02]	Di-glycerol tetraethers [GL0205]
Glycerolipids [GL]	Diradylglycerols [GL02]	Di-glycerol tetraether glycans [GL0206]
Glycerolipids [GL]	Glycosyldiradylglycerols [GL05]	Glycosyldiacylglycerols [GL0501]

Glycerolipids [GL]	Glycosyldiradylglycerols [GL05]	Glycosyldialkylglycerols [GL0503]
Glycerolipids [GL]	Glycosylmonoradylglycerols [GL04]	Glycosylmonoacylglycerols [GL0401]
Glycerolipids [GL]	Monoradylglycerols [GL01]	Monoalkylglycerols [GL0102]
Glycerolipids [GL]	Monoradylglycerols [GL01]	Monoacylglycerols [GL0101]
Glycerolipids [GL]	Other Glycerolipids [GL00]	-
Glycerolipids [GL]	Triradylglycerols [GL03]	Triacylglycerols [GL0301]
Glycerolipids [GL]	Triradylglycerols [GL03]	Estolides [GL0305]

Table 10.6: List of classes within **Glycerophospholipids** belonging to **General Lipidome MS-LAMP**. Code shown in the bracket ([]) may be entered in the text box to search specifically within that class.

Category	Main Class	Sub Class
Glycerophospholipids [GP]	CDP-Glycerols [GP13]	CDP-diacylglycerols [GP1301]
Glycerophospholipids [GP]	CDP-Glycerols [GP13]	CDP-Monoacylglycerols [GP1305]
Glycerophospholipids [GP]	Di-glycerol tetraether phospholipids (caldarchaeols) [GP18]	-
Glycerophospholipids [GP]	Glycerol-nonitol tetraether phospholipids [GP19]	-
Glycerophospholipids [GP]	Glycerophosphates [GP10]	1-(1Z-alkenyl),2-acylglycerophosphates [GP1003]
Glycerophospholipids [GP]	Glycerophosphates [GP10]	1-alkyl,2-acylglycerophosphates [GP1002]
Glycerophospholipids [GP]	Glycerophosphates [GP10]	1Z-alkenylglycerophosphates [GP1007]
Glycerophospholipids [GP]	Glycerophosphates [GP10]	Diacylglycerophosphates [GP1001]
Glycerophospholipids [GP]	Glycerophosphates [GP10]	Dialkylglycerophosphates [GP1004]
Glycerophospholipids [GP]	Glycerophosphates [GP10]	Monoacylglycerophosphates [GP1005]
Glycerophospholipids [GP]	Glycerophosphates [GP10]	Monoalkylglycerophosphates [GP1006]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	1-(1Z-alkenyl),2-acylglycerophosphocholines [GP0103]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	1-acyl,2-(1Z-alkenyl)-glycerophosphocholines [GP0109]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	1-acyl,2-alkylglycerophosphocholines [GP0108]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	1-alkyl,2-acylglycerophosphocholines [GP0102]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	1Z-alkenylglycerophosphocholines [GP0107]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	Diacylglycerophosphocholines [GP0101]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	Dialkylglycerophosphocholines [GP0104]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	Monoacylglycerophosphocholines [GP0105]
Glycerophospholipids [GP]	Glycerophosphocholines [GP01]	Monoalkylglycerophosphocholines [GP0106]
Glycerophospholipids [GP]	Glycerophosphoethanolamines [GP02]	1-(1Z-alkenyl),2-acylglycerophosphoethanolamines [GP0203]
Glycerophospholipids [GP]	Glycerophosphoethanolamines [GP02]	1-acyl,2-alkylglycerophosphoethanolamines [GP0208]

Glycerophospholipids [GP]	Glycerophosphoethanolamines [GP02]	1-alkyl,2-acylglycerophosphoethanolamines [GP0202]
Glycerophospholipids [GP]	Glycerophosphoethanolamines [GP02]	1Z-alkenylglycerophosphoethanolamines [GP0207]
Glycerophospholipids [GP]	Glycerophosphoethanolamines [GP02]	Diacylglycerophosphoethanolamines [GP0201]
Glycerophospholipids [GP]	Glycerophosphoethanolamines [GP02]	Dialkylglycerophosphoethanolamines [GP0204]
Glycerophospholipids [GP]	Glycerophosphoethanolamines [GP02]	Monoacylglycerophosphoethanolamines [GP0205]
Glycerophospholipids [GP]	Glycerophosphoethanolamines [GP02]	Monoalkylglycerophosphoethanolamines [GP0206]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	1-(1Z-alkenyl),2-acylglycerophosphoglycerols [GP0403]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	1-acyl,2-alkylglycerophosphoglycerols [GP0411]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	1-alkyl,2-acylglycerophosphoglycerols [GP0402]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	1Z-alkenylglycerophosphoglycerols [GP0407]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	Diacylglycerophosphoglycerols [GP0401]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	Diacylglycerophosphomonoradylglycerols [GP0409]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	Dialkylglycerophosphoglycerols [GP0404]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	Monoacylglycerophosphoglycerols [GP0405]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	Monoacylglycerophosphomonoradylglycerols [GP0410]
Glycerophospholipids [GP]	Glycerophosphoglycerols [GP04]	Monoalkylglycerophosphoglycerols [GP0406]
Glycerophospholipids [GP]	Glycerophosphoglycerophosphates [GP05]	Diacylglycerophosphoglycerophosphates [GP0501]
Glycerophospholipids [GP]	Glycerophosphoglycerophosphates [GP05]	Dialkylglycerophosphoglycerophosphates [GP0504]
Glycerophospholipids [GP]	Glycerophosphoglycerophosphoglycerols [GP12]	Diacylglycerophosphoglycerophosphodiradylglycerols [GP1201]
Glycerophospholipids [GP]	Glycerophosphoglycerophosphoglycerols [GP12]	Diacylglycerophosphoglycerophosphomonoradylglycerols [GP1202]
Glycerophospholipids [GP]	Glycerophosphoglycerophosphoglycerols [GP12]	Dialkylglycerophosphoglycerophosphodiradylglycerols [GP1212]
Glycerophospholipids [GP]	Glycerophosphoglycerophosphoglycerols [GP12]	Monoacylglycerophosphoglycerophosphomonoradylglycerols [GP1207]
Glycerophospholipids [GP]	Glycerophosphoinositol bisphosphates [GP08]	Diacylglycerophosphoinositol bisphosphates [GP0801]
Glycerophospholipids [GP]	Glycerophosphoinositol monophosphates [GP07]	Diacylglycerophosphoinositol monophosphates [GP0701]
Glycerophospholipids [GP]	Glycerophosphoinositol trisphosphates [GP09]	Diacylglycerophosphoinositol trisphosphates [GP0901]
Glycerophospholipids [GP]	Glycerophosphoinositolglycans [GP15]	Diacylglycerophosphoinositolglycans [GP1501]
Glycerophospholipids [GP]	Glycerophosphoinositols [GP06]	1-(1Z-alkenyl),2-acylglycerophosphoinositols [GP0603]
Glycerophospholipids [GP]	Glycerophosphoinositols [GP06]	1-alkyl,2-acylglycerophosphoinositols [GP0602]
Glycerophospholipids [GP]	Glycerophosphoinositols [GP06]	1Z-alkenylglycerophosphoinositols [GP0607]
Glycerophospholipids [GP]	Glycerophosphoinositols [GP06]	Diacylglycerophosphoinositols [GP0601]
Glycerophospholipids [GP]	Glycerophosphoinositols [GP06]	Dialkylglycerophosphoinositols [GP0604]
Glycerophospholipids [GP]	Glycerophosphoinositols [GP06]	Monoacylglycerophosphoinositols [GP0605]
Glycerophospholipids [GP]	Glycerophosphoinositols [GP06]	Monoalkylglycerophosphoinositols [GP0606]
Glycerophospholipids [GP]	Glycerophosphonocholines [GP16]	Diacylglycerophosphonocholines [GP1601]

Glycerophospholipids [GP]	Glycerophosphonoethanolamines [GP17]	Diacylglycerophosphonoethanolamines [GP1701]
Glycerophospholipids [GP]	Glycerophosphoserines [GP03]	1-(1Z-alkenyl),2-acylglycerophosphoserines [GP0303]
Glycerophospholipids [GP]	Glycerophosphoserines [GP03]	1-alkyl,2-acylglycerophosphoserines [GP0302]
Glycerophospholipids [GP]	Glycerophosphoserines [GP03]	1Z-alkenylglycerophosphoserines [GP0307]
Glycerophospholipids [GP]	Glycerophosphoserines [GP03]	Diacylglycerophosphoserines [GP0301]
Glycerophospholipids [GP]	Glycerophosphoserines [GP03]	Monoacylglycerophosphoserines [GP0305]
Glycerophospholipids [GP]	Glycerophosphoserines [GP03]	Monoalkylglycerophosphoserines [GP0306]
Glycerophospholipids [GP]	Glyceropyrophosphates [GP11]	Diacylglyceropyrophosphates [GP1101]
Glycerophospholipids [GP]	Glycosylglycerophospholipids [GP14]	Diacylglycosylglycerophospholipids [GP1401]
Glycerophospholipids [GP]	Glycosylglycerophospholipids [GP14]	Dialkylglycosylglycerophospholipids [GP1407]
Glycerophospholipids [GP]	Other Glycerophospholipids [GP00]	-
Glycerophospholipids [GP]	Oxidized glycerophospholipids [GP20]	Oxidized Cardiolipins [GP2003]
Glycerophospholipids [GP]	Oxidized glycerophospholipids [GP20]	Oxidized glycerophosphocholines [GP2001]
Glycerophospholipids [GP]	Oxidized glycerophospholipids [GP20]	Oxidized glycerophosphoethanolamines [GP2002]

Table 10.7: List of classes within **Polyketides** belonging to **General Lipidome MS-LAMP**. Code shown in the bracket ([]) may be entered in the text box to search specifically within that class.

Category	Main Class	Sub Class
Polyketides [PK]	Aflatoxins and related substances [PK10]	-
Polyketides [PK]	Angucyclines [PK08]	-
Polyketides [PK]	Annonaceae acetogenins [PK03]	-
Polyketides [PK]	Ansamycins and related polyketides [PK05]	-
Polyketides [PK]	Aromatic polyketides [PK13]	Monocyclic aromatic polyketides [PK1301]
Polyketides [PK]	Aromatic polyketides [PK13]	Diphenyl ethers, biphenyls, dibenzyls and stilbenes [PK1309]
Polyketides [PK]	Aromatic polyketides [PK13]	Benzopyranoids [PK1311]
Polyketides [PK]	Aromatic polyketides [PK13]	Anthracenes and phenanthrenes [PK1304]
Polyketides [PK]	Aromatic polyketides [PK13]	Benzoisochromanquinones [PK1303]
Polyketides [PK]	Aromatic polyketides [PK13]	Other aromatic polyketides [PK1312]
Polyketides [PK]	Aromatic polyketides [PK13]	Depsides and depsidones [PK1308]
Polyketides [PK]	Aromatic polyketides [PK13]	Dibenzofurans, griseofulvins, dibenzopyrans and xanthenes [PK1306]
Polyketides [PK]	Aromatic polyketides [PK13]	Benzofuranoids [PK1310]
Polyketides [PK]	Aromatic polyketides [PK13]	Diphenylmethanes, acylphloroglucinols and benzophenones [PK1307]

Polyketides [PK]	Aromatic polyketides [PK13]	Naphthalenes and naphthoquinones [PK1302]
Polyketides [PK]	Aromatic polyketides [PK13]	Anthracyclinones [PK1305]
Polyketides [PK]	Cytochalasins [PK11]	-
Polyketides [PK]	Flavonoids [PK12]	Chalcones and dihydrochalcones [PK1212]
Polyketides [PK]	Flavonoids [PK12]	Flavones and Flavonols [PK1211]
Polyketides [PK]	Flavonoids [PK12]	Flavans, Flavanols and Leucoanthocyanidins [PK1202]
Polyketides [PK]	Flavonoids [PK12]	Flavanones [PK1214]
Polyketides [PK]	Flavonoids [PK12]	Other Flavonoids [PK1216]
Polyketides [PK]	Flavonoids [PK12]	Isoflavans [PK1208]
Polyketides [PK]	Flavonoids [PK12]	Isoflavonoids [PK1205]
Polyketides [PK]	Flavonoids [PK12]	Pterocarpans [PK1207]
Polyketides [PK]	Flavonoids [PK12]	Neoflavonoids [PK1210]
Polyketides [PK]	Flavonoids [PK12]	Aurone flavonoids [PK1213]
Polyketides [PK]	Flavonoids [PK12]	Coumestan flavonoids [PK1209]
Polyketides [PK]	Flavonoids [PK12]	Anthocyanidins [PK1201]
Polyketides [PK]	Flavonoids [PK12]	Rotenoid flavonoids [PK1206]
Polyketides [PK]	Flavonoids [PK12]	Dihydroflavonols [PK1215]
Polyketides [PK]	Flavonoids [PK12]	Proanthocyanidins [PK1203]
Polyketides [PK]	Flavonoids [PK12]	Biflavonoids and polyflavonoids [PK1204]
Polyketides [PK]	Halogenated acetogenins [PK02]	-
Polyketides [PK]	Linear polyketides [PK01]	-
Polyketides [PK]	Linear tetracyclines [PK07]	-
Polyketides [PK]	Macrolides and lactone polyketides [PK04]	-
Polyketides [PK]	Non-ribosomal peptide/polyketide hybrids [PK14]	-
Polyketides [PK]	Other Polyketides [PK00]	-
Polyketides [PK]	Polyenes [PK06]	-
Polyketides [PK]	Polyether polyketides [PK09]	-

Table 10.8: List of classes within **Prenol Lipids** belonging to **General Lipidome MS-LAMP**. Code shown in the bracket ([]) may be entered in the text box to search specifically within that class.

Category	Main Class	Sub Class
Prenol Lipids [PR]	Hopanoids [PR04]	-

Prenol Lipids [PR]	Isoprenoids [PR01]	C10 isoprenoids (monoterpenes) [PR0102]
Prenol Lipids [PR]	Isoprenoids [PR01]	C15 isoprenoids (sesquiterpenes) [PR0103]
Prenol Lipids [PR]	Isoprenoids [PR01]	C40 isoprenoids (tetraterpenes) [PR0107]
Prenol Lipids [PR]	Isoprenoids [PR01]	C5 isoprenoids (hemiterpenes) [PR0101]
Prenol Lipids [PR]	Isoprenoids [PR01]	C20 isoprenoids (diterpenes) [PR0104]
Prenol Lipids [PR]	Isoprenoids [PR01]	Retinoids [PR0109]
Prenol Lipids [PR]	Isoprenoids [PR01]	C25 isoprenoids (sesterterpenes) [PR0105]
Prenol Lipids [PR]	Isoprenoids [PR01]	C30 isoprenoids (triterpenes) [PR0106]
Prenol Lipids [PR]	Isoprenoids [PR01]	Polyterpenes [PR0108]
Prenol Lipids [PR]	Polyprenols [PR03]	Dolichols [PR0307]
Prenol Lipids [PR]	Polyprenols [PR03]	Dolichol monophosphates [PR0308]
Prenol Lipids [PR]	Polyprenols [PR03]	Dolichol diphosphates [PR0309]
Prenol Lipids [PR]	Polyprenols [PR03]	Bactoprenol diphosphates [PR0303]
Prenol Lipids [PR]	Polyprenols [PR03]	Phytoprenols [PR0304]
Prenol Lipids [PR]	Polyprenols [PR03]	Bactoprenols [PR0301]
Prenol Lipids [PR]	Polyprenols [PR03]	Bactoprenol monophosphates [PR0302]
Prenol Lipids [PR]	Quinones and hydroquinones [PR02]	Vitamin E [PR0202]
Prenol Lipids [PR]	Quinones and hydroquinones [PR02]	Ubiquinones [PR0201]
Prenol Lipids [PR]	Quinones and hydroquinones [PR02]	Vitamin K [PR0203]

Table 10.9: List of classes within **Saccharolipids** belonging to **General Lipidome MS-LAMP**. Code shown in the bracket ([]) may be entered in the text box to search specifically within that class.

Category	Main Class	Sub Class
Saccharolipids [SL]	Acylaminosugar glycans [SL02]	-
Saccharolipids [SL]	Acylaminosugars [SL01]	Monoacylaminosugars [SL0101]
Saccharolipids [SL]	Acylaminosugars [SL01]	Diacylaminosugars [SL0102]
Saccharolipids [SL]	Acylaminosugars [SL01]	Tetraacylaminosugars [SL0104]
Saccharolipids [SL]	Acylaminosugars [SL01]	Pentaacylaminosugars [SL0105]
Saccharolipids [SL]	Acylaminosugars [SL01]	Hexaacylaminosugars [SL0106]
Saccharolipids [SL]	Acyltrehaloses [SL03]	-
Saccharolipids [SL]	Other acyl sugars [SL05]	-

Table 10.10: List of classes within **Sphingolipids** belonging to **General Lipidome MS-LAMP**. Code shown in the bracket ([]) may be entered in the text box to search specifically within that class.

Category	Main Class	Sub Class
Sphingolipids [SP]	Acidic glycosphingolipids [SP06]	Glucuronosphingolipids [SP0603]
Sphingolipids [SP]	Acidic glycosphingolipids [SP06]	Sulfoglycosphingolipids (sulfatides) [SP0602]
Sphingolipids [SP]	Acidic glycosphingolipids [SP06]	Gangliosides [SP0601]
Sphingolipids [SP]	Acidic glycosphingolipids [SP06]	Phosphoglycosphingolipids [SP0604]
Sphingolipids [SP]	Amphoteric glycosphingolipids [SP08]	-
Sphingolipids [SP]	Basic glycosphingolipids [SP07]	-
Sphingolipids [SP]	Ceramides [SP02]	N-acylsphingosines (ceramides) [SP0201]
Sphingolipids [SP]	Ceramides [SP02]	Ceramide 1-phosphates [SP0205]
Sphingolipids [SP]	Ceramides [SP02]	N-acylsphinganine (dihydroceramides) [SP0202]
Sphingolipids [SP]	Ceramides [SP02]	N-acyl-4-hydroxysphinganine (phytoceramides) [SP0203]
Sphingolipids [SP]	Ceramides [SP02]	Acylceramides [SP0204]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	Simple Glc series [SP0501]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	Gal- (Gala series) [SP0509]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	GalNAc β 1-3Gal α 1-4Gal β 1-4Glc- (Globo series) [SP0502]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	Gal β 1-4GlcNAc β 1-3Gal β 1-4Glc- (Neolacto series) [SP0505]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	GlcNAc β 1-2Man α 1-3Man β 1-4Glc- (Mollu series) [SP0507]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	Other Neutral glycosphingolipids [SP0500]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	GalNAc β 1-4Gal β 1-4Glc- (Ganglio series) [SP0503]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	Gal β 1-3GlcNAc β 1-3Gal β 1-4Glc- (Lacto series) [SP0504]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	GalNAc β 1-4GlcNAc β 1-3Man β 1-4Glc- (Arthro series) [SP0508]
Sphingolipids [SP]	Neutral glycosphingolipids [SP05]	GalNAc β 1-3Gal α 1-3Gal β 1-4Glc- (Isoglobo series) [SP0506]
Sphingolipids [SP]	Other Sphingolipids [SP00]	-
Sphingolipids [SP]	Phosphosphingolipids [SP04]	-
Sphingolipids [SP]	Phosphosphingolipids [SP03]	Ceramide phosphocholines (sphingomyelins) [SP0301]
Sphingolipids [SP]	Phosphosphingolipids [SP03]	Ceramide phosphoethanolamines [SP0302]
Sphingolipids [SP]	Phosphosphingolipids [SP03]	Ceramide phosphoinositols [SP0303]
Sphingolipids [SP]	Sphingoid bases [SP01]	Sphingoid base analogs [SP0108]
Sphingolipids [SP]	Sphingoid bases [SP01]	Sphingoid base homologs and variants [SP0104]
Sphingolipids [SP]	Sphingoid bases [SP01]	Sphing-4-enines (Sphingosines) [SP0101]
Sphingolipids [SP]	Sphingoid bases [SP01]	Sphinganine [SP0102]

Sphingolipids [SP]	Sphingoid bases [SP01]	4-Hydroxysphinganine (Phytosphingosine) [SP0103]
Sphingolipids [SP]	Sphingoid bases [SP01]	N-methylated sphingoid bases [SP0107]
Sphingolipids [SP]	Sphingoid bases [SP01]	Sphingoid base 1-phosphates [SP0105]
Sphingolipids [SP]	Sphingoid bases [SP01]	Lysosphingomyelins and lysoglycosphingolipids [SP0106]

Table 10.11: List of classes within **Sterol Lipids** belonging to **General Lipidome MS-LAMP**. Code shown in the bracket ([]) may be entered in the text box to search specifically within that class.

CATEGORY	MAIN_CLASS	SUB_CLASS
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C22 bile acids, alcohols, and derivatives [ST0405]
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C23 bile acids, alcohols, and derivatives [ST0406]
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C24 bile acids, alcohols, and derivatives [ST0401]
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C25 bile acids, alcohols, and derivatives [ST0407]
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C26 bile acids, alcohols, and derivatives [ST0402]
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C27 bile acids, alcohols, and derivatives [ST0403]
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C27 bile acids, alcohols, and derivatives [ST0403]
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C28 bile acids, alcohols, and derivatives [ST0404]
Sterol Lipids [ST]	Bile acids and derivatives [ST04]	C29 bile acids, alcohols, and derivatives [ST0408]
Sterol Lipids [ST]	Secosteroids [ST03]	Vitamin D2 and derivatives [ST0301]
Sterol Lipids [ST]	Secosteroids [ST03]	Vitamin D3 and derivatives [ST0302]
Sterol Lipids [ST]	Secosteroids [ST03]	Vitamin D4 and derivatives [ST0303]
Sterol Lipids [ST]	Secosteroids [ST03]	Vitamin D5 and derivatives [ST0304]
Sterol Lipids [ST]	Secosteroids [ST03]	Vitamin D6 and derivatives [ST0305]
Sterol Lipids [ST]	Secosteroids [ST03]	Vitamin D7 and derivatives [ST0306]
Sterol Lipids [ST]	Steroid conjugates [ST05]	Glucuronides [ST0501]
Sterol Lipids [ST]	Steroid conjugates [ST05]	Glycine conjugates [ST0503]
Sterol Lipids [ST]	Steroid conjugates [ST05]	Other Steroid conjugates [ST0505]
Sterol Lipids [ST]	Steroid conjugates [ST05]	Sulfates [ST0502]
Sterol Lipids [ST]	Steroid conjugates [ST05]	Sulfates [ST0502]
Sterol Lipids [ST]	Steroid conjugates [ST05]	Taurine conjugates [ST0504]
Sterol Lipids [ST]	Steroids [ST02]	C18 steroids (estrogens) and derivatives [ST0201]
Sterol Lipids [ST]	Steroids [ST02]	C19 steroids (androgens) and derivatives [ST0202]
Sterol Lipids [ST]	Steroids [ST02]	C21 steroids (gluco/mineralocorticoids, progestogens) and derivatives [ST0203]
Sterol Lipids [ST]	Sterols [ST01]	Brassinolides and derivatives [ST0114]

Sterol Lipids [ST]	Sterols [ST01]	Bufanolides and derivatives [ST0113]
Sterol Lipids [ST]	Sterols [ST01]	C24-propyl sterols and derivatives [ST0105]
Sterol Lipids [ST]	Sterols [ST01]	Calysterols and cyclopropyl sidechain derivatives [ST0111]
Sterol Lipids [ST]	Sterols [ST01]	Cardanolides and derivatives [ST0112]
Sterol Lipids [ST]	Sterols [ST01]	Cholesterol and derivatives [ST0101]
Sterol Lipids [ST]	Sterols [ST01]	Cholesteryl esters [ST0102]
Sterol Lipids [ST]	Sterols [ST01]	Cholesteryl esters [ST0102]
Sterol Lipids [ST]	Sterols [ST01]	Cycloartanols and derivatives [ST0110]
Sterol Lipids [ST]	Sterols [ST01]	Ergosterols and C24-methyl derivatives [ST0103]
Sterol Lipids [ST]	Sterols [ST01]	Ergosterols and C24-methyl derivatives [ST0103]
Sterol Lipids [ST]	Sterols [ST01]	Furospirostanols and derivatives [ST0109]
Sterol Lipids [ST]	Sterols [ST01]	Furostanols and derivatives [ST0107]
Sterol Lipids [ST]	Sterols [ST01]	Gorgosterols and derivatives [ST0106]
Sterol Lipids [ST]	Sterols [ST01]	Solanidines and alkaloid derivatives [ST0115]
Sterol Lipids [ST]	Sterols [ST01]	Spirostanols and derivatives [ST0108]
Sterol Lipids [ST]	Sterols [ST01]	Stigmasterols and C24-ethyl derivatives [ST0104]
Sterol Lipids [ST]	Sterols [ST01]	Stigmasterols and C24-ethyl derivatives [ST0104]
Sterol Lipids [ST]	Sterols [ST01]	Withanolides and derivatives [ST0116]