Resource Summary Report

Generated by PRECISE-TBI on Jul 31, 2026

LIPID MAPS Structure Database

RRID:SCR_003817
Type: Tool

Proper Citation

LIPID MAPS Structure Database (RRID:SCR_003817)

Resource Information

URL: http://www.lipidmaps.org/data/structure/

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Description: Collection of structures and annotations of biologically relevant lipids that contains unique lipid structures. Structures of lipids from : LIPID MAPS Consortium's core laboratories and partners; lipids identified by LIPID MAPS experiments; biologically relevant lipids manually curated from LIPID BANK, LIPIDAT, Lipid Library, Cyberlipids, ChEBI and other public sources; novel lipids submitted to peer-reviewed journals; and computationally generated structures for appropriate classes. All the lipid structures adhere to the structure drawing rules proposed by the LIPID MAPS consortium. A number of structure viewing options are offered: gif image (default), Chemdraw (requires Chemdraw ActiveX/Plugin), MarvinView (Java applet) and JMol (Java applet). All lipids have been classified using the LIPID MAPS Lipid Classification System. Each lipid structure has been assigned a LIPID MAPS ID (LM_ID) which reflects its position in the classification hierarchy. In addition to a classification-based retrieval of lipids, users can search using either text-based or structure-based search options.

Abbreviations: LMSD

Synonyms: LIPID MAPS Structure Database (LMSD)

Resource Type: data or information resource, database

Defining Citation: PMID:17098933

Keywords: fatty acyl, glycerolipid, glycerophospholipid, sphingolipid, sterol lipid, prenol lipid, sacccharolipid, polyketide, lipid, structure, image, annotation, metabolomics

Funding: NIGMS

Resource Name: LIPID MAPS Structure Database

Resource ID: SCR_003817

Alternate IDs: nlx_158117

Record Creation Time: 20220129T080221+0000

Record Last Update: 20260729T044049+0000

Ratings and Alerts

No rating or validation information has been found for LIPID MAPS Structure Database.

No alerts have been found for LIPID MAPS Structure Database.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 19 mentions in open access literature.

Listed below are recent publications. The full list is available at PRECISE-TBI .

Yang Y, et al. (2025) Application of lipidomics in the study of traditional Chinese medicine. Journal of pharmaceutical analysis, 15(2), 101083.

Wang D, et al. (2024) Oral administration of Robinia pseudoacacia L. flower exosome-like nanoparticles attenuates gastric and small intestinal mucosal ferroptosis caused by hypoxia through inhibiting HIF-1?- and HIF-2?-mediated lipid peroxidation. Journal of nanobiotechnology, 22(1), 479.

Eide M, et al. (2023) Integrative omics-analysis of lipid metabolism regulation by peroxisome proliferator-activated receptor a and b agonists in male Atlantic cod. Frontiers in physiology, 14, 1129089.

Shu S, et al. (2022) The Effects of Postpartum Yak Metabolism on Reproductive System Recovery. Metabolites, 12(11).

Doolan BJ, et al. (2022) A clinician's guide to omics resources in dermatology. Clinical and experimental dermatology, 47(5), 858.

Lima MF, et al. (2022) Untargeted Metabolomics Studies of H9c2 Cardiac Cells Submitted to Oxidative Stress, ?-Adrenergic Stimulation and Doxorubicin Treatment: Investigation of Cardiac Biomarkers. Frontiers in molecular biosciences, 9, 898742.

Wu B, et al. (2021) Transcriptomic and Lipidomic Analysis of Lipids in Forsythia suspensa. Frontiers in genetics, 12, 758326.

Postila PA, et al. (2020) A Perspective: Active Role of Lipids in Neurotransmitter Dynamics. Molecular neurobiology, 57(2), 910.

Ferchaud-Roucher V, et al. (2019) A potential role for lysophosphatidylcholine in the delivery of long chain polyunsaturated fatty acids to the fetal circulation. Biochimica et biophysica acta. Molecular and cell biology of lipids, 1864(3), 394.

Fincher JA, et al. (2019) Matrix-free mass spectrometry imaging of mouse brain tissue sections on silicon nanopost arrays. The Journal of comparative neurology, 527(13), 2101.

Enkavi G, et al. (2019) Multiscale Simulations of Biological Membranes: The Challenge To Understand Biological Phenomena in a Living Substance. Chemical reviews, 119(9), 5607.

Granger MW, et al. (2019) Distinct disruptions in Land's cycle remodeling of glycerophosphocholines in murine cortex mark symptomatic onset and progression in two Alzheimer's disease mouse models. Journal of neurochemistry, 149(4), 499.

Hunter M, et al. (2018) Subventricular zone lipidomic architecture loss in Huntington's disease. Journal of neurochemistry, 146(5), 613.

Ghosh D, et al. (2018) Leveraging Multilayered "Omics" Data for Atopic Dermatitis: A Road Map to Precision Medicine. Frontiers in immunology, 9, 2727.

Ternan NG, et al. (2018) Increased sporulation underpins adaptation of Clostridium difficile strain 630 to a biologically-relevant faecal environment, with implications for pathogenicity. Scientific reports, 8(1), 16691.

DeZwaan-McCabe D, et al. (2017) ER Stress Inhibits Liver Fatty Acid Oxidation while Unmitigated Stress Leads to Anorexia-Induced Lipolysis and Both Liver and Kidney Steatosis. Cell reports, 19(9), 1794.

Lee K, et al. (2016) Gain-of-Function Alleles in Caenorhabditis elegans Nuclear Hormone Receptor nhr-49 Are Functionally Distinct. PloS one, 11(9), e0162708.

Mendis LH, et al. (2016) Hippocampal lipid differences in Alzheimer's disease: a human brain study using matrix-assisted laser desorption/ionization-imaging mass spectrometry. Brain and behavior, 6(10), e00517.

Dias DA, et al. (2016) Progress in Metabolomics Standardisation and its Significance in Future Clinical Laboratory Medicine. EJIFCC, 27(4), 331.