Resource Summary Report

Generated by kravitz2 on Sep 19, 2026

Orientations of Proteins in Membranes database

RRID:SCR_011961
Type: Tool

Proper Citation

Orientations of Proteins in Membranes database (RRID:SCR_011961)

Resource Information

URL: http://opm.phar.umich.edu/

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Description: Database that provides a collection of transmembrane, monotopic and peripheral proteins from the Protein Data Bank whose spatial arrangements in the lipid bilayer have been calculated theoretically and compared with experimental data. The database allows analysis, sorting and searching of membrane proteins based on their structural classification, species, destination membrane, numbers of transmembrane segments and subunits, numbers of secondary structures and the calculated hydrophobic thickness or tilt angle with respect to the bilayer normal.

Abbreviations: OPM

Synonyms: Orientations of Proteins in Membranes (OPM) database, OPM Database

Resource Type: data or information resource, database, image collection

Defining Citation: PMID:16397007

Keywords: protein, membrane, bio.tools, FASEB list

Funding: NSF

Availability: Acknowledgement requested

Resource Name: Orientations of Proteins in Membranes database

Resource ID: SCR_011961

Alternate IDs: OMICS_01612, biotools:opm

Alternate URLs: https://bio.tools/opm

Record Creation Time: 20220129T080307+0000

Record Last Update: 20260912T195743+0000

Ratings and Alerts

No rating or validation information has been found for Orientations of Proteins in Membranes database.

No alerts have been found for Orientations of Proteins in Membranes database.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 135 mentions in open access literature.

Listed below are recent publications. The full list is available at kravitz2 .

Walker AR, et al. (2026) Differential conservation analysis identifies residues defining constitutive internalization in beta-adrenergic receptors. iScience, 29(3), 115033.

Stawarski M, et al. (2026) Functional signatures of de novo GABBR1 and GABBR2 variants associated with neurodevelopmental disorders. NPJ genomic medicine, 11(1).

Zhang X, et al. (2026) Mechanistic insights into ligand selectivity in ?- and ?-opioid receptors beyond the "message-address" conceptual framework. Acta pharmaceutica Sinica. B, 16(3), 1530.

Moreno-Giménez E, et al. (2026) Bioconversion of carotenoids into high-value crocins using a marine sponge carotenoid cleavage dioxygenase. The New phytologist, 250(5), 3230.

Morris GP, et al. (2026) A sorghum pangenome reference improves global crop trait discovery. Nature, 652(8112), 1245.

Zhao Z, et al. (2026) Structure of the human P2X3 receptor reveals the basis for subtype-selective inhibition by sivopixant. PLoS biology, 24(4), e3003777.

Merz M, et al. (2025) Downstream Signaling of Muscarinic M4 Receptors Is Regulated by Receptor Density and Cellular Environment. Pharmacology research & perspectives, 13(3), e70123.

van der Velden WJC, et al. (2025) Allosteric communication mechanism in the glucagon receptor. The Journal of biological chemistry, 301(6), 108530.

Markwardt F, et al. (2025) Activation of the Rat P2X7 Receptor by Functionally Different ATP Activation Sites. Cells, 14(12).

Yamamuro T, et al. (2025) Mitochondria-derived PEP licenses glycerolipid synthesis via SLC25A35. bioRxiv : the preprint server for biology.

Farfán-García AE, et al. (2025) Structural and functional analysis of Escherichia coli membrane disruption by Ib-M peptides. PloS one, 20(10), e0334029.

Romp E, et al. (2025) Modifications in FLAP's second cytosolic loop influence 5-LOX interaction, inhibitor binding, and leukotriene formation. FEBS letters, 599(15), 2179.

Vladkova R, et al. (2025) X-Ray Crystal and Cryo-Electron Microscopy Structure Analysis Unravels How the Unique Thylakoid Lipid Composition Is Utilized by Cytochrome b6f for Driving Reversible Proteins' Reorganization During State Transitions. Membranes, 15(5).

Guo CR, et al. (2025) Understanding interspecies drug response variations between human and rodent P2X7 receptors. Nature communications, 16(1), 10827.

Clemente-Moragón A, et al. (2025) Pharmacogenomics and chronotherapy of drug-induced cardioprotection in acute myocardial infarction. Nature communications, 16(1), 10450.

Lin YY, et al. (2024) Finely ordered intracellular domain harbors an allosteric site to modulate physiopathological function of P2X3 receptors. Nature communications, 15(1), 7652.

Floch A, et al. (2024) Molecular dynamics of the human RhD and RhAG blood group proteins. Frontiers in chemistry, 12, 1360392.

Rullo-Tubau J, et al. (2024) Structure and mechanisms of transport of human Asc1/CD98hc amino acid transporter. Nature communications, 15(1), 2986.

Lazzara F, et al. (2024) Anti-angiogenic and antioxidant effects of axitinib in human retinal endothelial cells: implications in diabetic retinopathy. Frontiers in pharmacology, 15, 1415846.

Rooney J, et al. (2024) Structural and functional analyses of nematode-derived antimicrobial peptides support the occurrence of direct mechanisms of worm-microbiota interactions. Computational and structural biotechnology journal, 23, 1522.