

Resource Summary Report

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G Protein-Coupled Receptor Data Base

RRID:SCR_007419

Type: Tool

Proper Citation

G Protein-Coupled Receptor Data Base (RRID:SCR_007419)

Resource Information

URL: <https://gpcrdb.org/>

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Description: The GPCRDB is a molecular-class information system that collects, combines, validates and stores large amounts of heterogenous data on G protein-coupled receptors (GPCRs). :The GPCRDB contains data on sequences, ligand binding constants and mutations. In addition, t he system provides computationally derived data such as multiple sequence alignments, homology models, and a series of query and visualization tools. :The GPCRDB is designed to be a data storage medium, as well as a tool to aid biomedical scientists with answering questions by offering a single point of access to many types of data that are integrated and visualized in a user-friendly way. Although most parts of the GPCRDB are self-explanatory, if you have not used this resource before it is advised that you to take a look at the usage page. Sponsors: This resource is supported by Organon and Unilever, and the NIH. Keywords: G protein, Coupled, receptor, Molecular, Heterogenous, Data, Sequence, Ligand, Mutation, Computational, Software, Alignment, Homology, Model, Visualization, Tool, Biomedical, Scientist, Integration,

Synonyms: GPCRDB

Resource Type: service resource, database, software resource, storage service resource, data repository, data or information resource

Keywords: FASEB list

Resource Name: G Protein-Coupled Receptor Data Base

Resource ID: SCR_007419

Alternate IDs: nif-0000-00521

Old URLs: <http://www.gpcr.org/7tm/>

Record Creation Time: 20220129T080241+0000

Record Last Update: 20260728T043250+0000

Ratings and Alerts

No rating or validation information has been found for G Protein-Coupled Receptor Data Base.

No alerts have been found for G Protein-Coupled Receptor Data Base.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 175 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Wei W, et al. (2025) Protein Frustration Reveals Active Sites in Co-Evolved GPCR:G Protein Complexes and in Engineered Targeted Degradation Complexes. bioRxiv : the preprint server for biology.

Salmaso V, et al. (2025) Adenosine Receptors in Neuroinflammation and Neurodegeneration. Cells, 14(20).

Garcia De Las Bayonas A, et al. (2025) G-protein-coupled receptor diversity and evolution in the closest living relatives of metazoa. eLife, 14.

Manookian B, et al. (2025) Temporally Resolved and Interpretable Machine Learning Model of GPCR conformational transition. bioRxiv : the preprint server for biology.

Tun-Rosado FJ, et al. (2025) Toward Predictive Models of Biased Agonists of the Mu Opioid Receptor. Biochemistry, 64(9), 1943.

S??rensen KV, et al. (2025) Rare MTNR1B variants causing diminished MT2 signalling associate with elevated HbA1c levels but not with type 2 diabetes. Diabetologia, 68(5), 1016.

Herrera LPT, et al. (2025) GPCRdb in 2025: adding odorant receptors, data mapper, structure similarity search and models of physiological ligand complexes. Nucleic acids research, 53(D1), D425.

Brahma R, et al. (2025) AiGPro: a multi-tasks model for profiling of GPCRs for agonist and antagonist. Journal of cheminformatics, 17(1), 12.

Luttens A, et al. (2025) Rapid traversal of vast chemical space using machine learning-guided docking screens. Nature computational science, 5(4), 301.

Hoegen Dijkhof LR, et al. (2025) Deep learning in GPCR drug discovery: benchmarking the path to accurate peptide binding. *Briefings in bioinformatics*, 26(2).

Sarker DK, et al. (2025) Exploring the impact of deleterious missense nonsynonymous single nucleotide polymorphisms in the DRD4 gene using computational approaches. *Scientific reports*, 15(1), 3150.

Bi Z, et al. (2025) Emerging paradigms for target discovery of traditional medicines: A genome-wide pan-GPCR perspective. *Innovation (Cambridge (Mass.))*, 6(3), 100774.

Shi S, et al. (2025) Recent Developments in the Optical Control of Adrenergic Signaling. *Medicinal research reviews*, 45(5), 1307.

Deganutti G, et al. (2025) Hidden GPCR structural transitions addressed by multiple walker supervised molecular dynamics (mwSuMD). *eLife*, 13.

Howard CJ, et al. (2025) High-resolution deep mutational scanning of the melanocortin-4 receptor enables target characterization for drug discovery. *eLife*, 13.

Franco R, et al. (2024) The Olfactory Trail of Neurodegenerative Diseases. *Cells*, 13(7).

Jo-Watanabe A, et al. (2024) Bicarbonate signalling via G protein-coupled receptor regulates ischaemia-reperfusion injury. *Nature communications*, 15(1), 1530.

Tani K, et al. (2024) Structure of endothelin ETB receptor-Gi complex in a conformation stabilized by unique NPxxL motif. *Communications biology*, 7(1), 1303.

Kayastha K, et al. (2024) Structural perspectives on chemokine receptors. *Biochemical Society transactions*, 52(3), 1011.

Dance A, et al. (2024) Exploring the role of purinergic receptor P2RY1 in type 2 diabetes risk and pathophysiology: Insights from human functional genomics. *Molecular metabolism*, 79, 101867.