

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: data repository, data or information resource, database, storage service resource, service resource, software 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: 20260804T043328+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 [ASWG](#).

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

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*.

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

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.

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.

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

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

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).

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.

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

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.