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GPCRDB: GPCR Data, Diagrams and Tools

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GPCRDB (gpcr.org/7tm) has been a popular resource for the G protein-coupled receptors community for the past 20 years and obtained more than 1000 citations.¹⁻⁵ GPCRDB contains experimental data on crystal structures, mutations and oligomers, as well as computationally derived sequence alignments and homology models. The latest release has added user-friendly web browser tools and diagrams for download for publication (tools.gpcr.org).

New feature highlights

Diagrams

- Interactive residue snake- and helix box plots
- Phylogenetic trees based on any subsequence

Data

- Structure-based sequence alignments and 3D models
- Sequence conservation statistics for alignments
- Generic residue numbering of sequences and structures

Tools

- Crystal structure browser with annotations
- Ligand off-target prediction by binding sequence motif search
- Receptor similarities based on any subsequence

¹Horn, F. et al. *Nucleic Acids Res.*, 1998, 26, 275-279.

²Horn, F. et al. *Nucleic Acids Res.*, 2003, 31, 294-297.

³Horn, F. et al. *Nucleic Acids Res.*, 2001, 29, 346-349.

⁴Vroling, B. et al. *Nucleic Acids Res.*, 2011, 39, 309-319.

⁵Isberg, V. et al. *Nucleic Acids Res.*, 2014, 42, 422-425.