

# Resource Summary Report

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## G Protein-Coupled Receptor BioAssays Ontology

RRID:SCR\_010324

Type: Tool

### Proper Citation

G Protein-Coupled Receptor BioAssays Ontology (RRID:SCR\_010324)

### Resource Information

**URL:** <http://purl.bioontology.org/ontology/BAO-GPCR>

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**Description:** Ontology ([http://www.bioassayontology.org/bao\\_gpcr](http://www.bioassayontology.org/bao_gpcr)) that describes pharmacology, biochemistry and physiology of these important and therapeutically promising class of academic and pharmaceutical research targets. Incorporation and comparison of various small molecule screening data sets, such as those deposited in PubChem, ChEMBL, KEGG, PDSP, and/or IUPHAR databases, requires a formalized electronic organization system. In order to bridge the gap between the overflow of HTS data and the bottleneck of integrated analysis tools, herein, we provide the first comprehensive GPCR ontology. The development and utility of GPCR ontology was based on previously developed BioAssay Ontology (BAO). The GPCR ontology contains information about biochemical, pharmacological, and functional properties of individual GPCRs as well as GPCR-selective ligands inclusive of their HTS screening results and other records. This provides the first all-inclusive GPCR ontology with all available data to model the relationship between the GPCR binding sites and their physiologic and pharmacologic role in physiology via small molecule chemical structures. We developed this system using emerging semantic technologies, by leveraging existing and descriptive domain level ontologies.

**Abbreviations:** BAO-GPCR

**Resource Type:** controlled vocabulary, data or information resource, ontology

**Keywords:** owl

**Resource Name:** G Protein-Coupled Receptor BioAssays Ontology

**Resource ID:** SCR\_010324

**Alternate IDs:** nlx\_157410

**Record Creation Time:** 20220129T080258+0000

**Record Last Update:** 20260829T182342+0000

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## Ratings and Alerts

No rating or validation information has been found for G Protein-Coupled Receptor BioAssays Ontology.

No alerts have been found for G Protein-Coupled Receptor BioAssays Ontology.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 5 mentions in open access literature.

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

Lim N, et al. (2021) Curation of over 10 000 transcriptomic studies to enable data reuse. Database : the journal of biological databases and curation, 2021.

Hu H, et al. (2019) Systematic identification of target set-dependent activity cliffs. Future science OA, 5(2), FSO363.

Mallinson SJB, et al. (2018) A promiscuous cytochrome P450 aromatic O-demethylase for lignin bioconversion. Nature communications, 9(1), 2487.

Soufan O, et al. (2016) DRABAL: novel method to mine large high-throughput screening assays using Bayesian active learning. Journal of cheminformatics, 8, 64.

Troein C, et al. (2006) An introduction to BioArray Software Environment. Methods in enzymology, 411, 99.