

Resource Summary Report

Generated by [FDI Lab - SciCrunch.org](#) on Apr 18, 2025

SynDB: Synapse DataBase

RRID:SCR_005918

Type: Tool

Proper Citation

SynDB: Synapse DataBase (RRID:SCR_005918)

Resource Information

URL: <http://syndb.cbi.pku.edu.cn>

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Description: SynDB is an online resource of proteins known or predicted to be related to the synapse or synaptic activity, and extensive information on the proteins' functions, sequences, structures, expression, pathways, interactions, and disease associations. It is intended to be a repository of current knowledge and data as well as a starting point for future proteomics research in neurobiology. SynDB is the first focused database of the molecular biology of the synapse proteome. It contains the most comprehensive collection of proteins (13809 unique proteins spanning 1979 species and 104 protein domains, Aug 2006) that are known or predicted to be associated with synaptic activities. It integrates extensive information on protein functions, sequences, structures, expression, pathways, interactions, and disease associations. SynDB was generated using a combination of automated approaches, including keyword- and domain-based searches, and manual curation. It serves as a starting point for future neurobiology, neuropharmacology, and neuroinformatics research. Synapse ontology is a set of standard vocabulary which help to describe all synaptic gene products in a consistent way. As in common ontology, synapse ontology is composed of all the terms in a hierarchical structure, but specifically restricted to the function and structure annotation of synapse related gene products. Synapse ontology is a collaborative fruit of bioinformaticists and neural biologists. Synapse ontology is aimed to describe all the synaptic molecules in terms of structure/biochemistry of synapse and physiology/function at synapse in a species-independent manner. The controlled vocabularies are hierarchically structured, so you can browser the related gene products in different levels: for example, you can find all the gene products of synaptic vesicle cycling or ion channels and receptors, or you can zoom in on all the gene products playing roles in the priming step of synaptic vesicle cycling.

Synonyms: SynDB

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

Funding:

Resource Name: SynDB: Synapse DataBase

Resource ID: SCR_005918

Alternate IDs: nif-0000-00084

Record Creation Time: 20220129T080233+0000

Record Last Update: 20250417T065237+0000

Ratings and Alerts

No rating or validation information has been found for SynDB: Synapse DataBase.

No alerts have been found for SynDB: Synapse DataBase.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 3 mentions in open access literature.

Listed below are recent publications. The full list is available at [FDI Lab - SciCrunch.org](#).

Hai L, et al. (2024) A clinically applicable connectivity signature for glioblastoma includes the tumor network driver CHI3L1. Nature communications, 15(1), 968.

Villeneuve LM, et al. (2014) Proteomic analysis of the mitochondria from embryonic and postnatal rat brains reveals response to developmental changes in energy demands. Journal of proteomics, 109, 228.

Bubier JA, et al. (2012) Accelerating discovery for complex neurological and behavioral disorders through systems genetics and integrative genomics in the laboratory mouse. Neurotherapeutics : the journal of the American Society for Experimental NeuroTherapeutics, 9(2), 338.