Resource Summary Report

Generated by dkNET on Apr 26, 2025

Synaptic Vesicles Detection

RRID:SCR_024910
Type: Tool

Proper Citation

Synaptic Vesicles Detection (RRID:SCR_024910)

Resource Information

URL: https://github.com/Imbrosci/synaptic-vesicles-detection

Proper Citation: Synaptic Vesicles Detection (RRID:SCR_024910)

Description: Software tool as Python based synaptic vesicle classifier algorithm to identify neurotransmitter vesicles in electron microscopy images using Pytorch.

Resource Type: data processing software, image analysis software, source code, software resource, software application

Defining Citation: PMID:34983830

Keywords: OpenBehavior, synaptic vesicle classifier algorithm, identify neurotransmitter vesicles, electron microscopy images

Funding:

Availability: Free, Available for download, Freely available

Resource Name: Synaptic Vesicles Detection

Resource ID: SCR_024910

Alternate URLs: https://edspace.american.edu/openbehavior/project/synaptic-vesicles-detection-and-localization/

Record Creation Time: 20240129T210604+0000

Record Last Update: 20250426T061034+0000

Ratings and Alerts

No rating or validation information has been found for Synaptic Vesicles Detection.

No alerts have been found for Synaptic Vesicles Detection.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 12 mentions in open access literature.

Listed below are recent publications. The full list is available at dkNET.

Bruentgens F, et al. (2024) The Lack of Synapsin Alters Presynaptic Plasticity at Hippocampal Mossy Fibers in Male Mice. eNeuro, 11(7).

Meszlényi V, et al. (2020) Passive Transfer of Sera from ALS Patients with Identified Mutations Evokes an Increased Synaptic Vesicle Number and Elevation of Calcium Levels in Motor Axon Terminals, Similar to Sera from Sporadic Patients. International journal of molecular sciences, 21(15).

Fasano C, et al. (2017) Regulation of the Hippocampal Network by VGLUT3-Positive CCK-GABAergic Basket Cells. Frontiers in cellular neuroscience, 11, 140.

Wang X, et al. (2017) Deletion of Nampt in Projection Neurons of Adult Mice Leads to Motor Dysfunction, Neurodegeneration, and Death. Cell reports, 20(9), 2184.

Omiatek DM, et al. (2013) The real catecholamine content of secretory vesicles in the CNS revealed by electrochemical cytometry. Scientific reports, 3, 1447.

Ninkina N, et al. (2012) Contrasting effects of ?-synuclein and ?-synuclein on the phenotype of cysteine string protein ? (CSP?) null mutant mice suggest distinct function of these proteins in neuronal synapses. The Journal of biological chemistry, 287(53), 44471.

Darios F, et al. (2009) Sphingosine facilitates SNARE complex assembly and activates synaptic vesicle exocytosis. Neuron, 62(5), 683.

Shen K, et al. (2003) The immunoglobulin superfamily protein SYG-1 determines the location of specific synapses in C. elegans. Cell, 112(5), 619.

Liu Y, et al. (2002) The UCH-L1 gene encodes two opposing enzymatic activities that affect alpha-synuclein degradation and Parkinson's disease susceptibility. Cell, 111(2), 209.

Stobrawa SM, et al. (2001) Disruption of ClC-3, a chloride channel expressed on synaptic vesicles, leads to a loss of the hippocampus. Neuron, 29(1), 185.

Prekeris R, et al. (1997) Brain myosin V is a synaptic vesicle-associated motor protein: evidence for a Ca2+-dependent interaction with the synaptobrevin-synaptophysin complex. The Journal of cell biology, 137(7), 1589.

Hsu SC, et al. (1996) The mammalian brain rsec6/8 complex. Neuron, 17(6), 1209.