

Resource Summary Report

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NeuronUnit

RRID:SCR_015634

Type: Tool

Proper Citation

NeuronUnit (RRID:SCR_015634)

Resource Information

URL: <https://github.com/scidash/neuronunit>

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Description: Software toolkit for data-driven validation of neuron and ion channel models using SciUnit. NeuronUnit implements an interface to several simulators and model description languages, handles test calculations according to domain standards, and enables automated construction of tests based on data from several major public data repositories.

Resource Type: software resource, source code, software toolkit

Keywords: ion channel, neuron, validation, simulation, model description language, modeling software

Funding: NIBIB R01EB021711

Availability: Tutorial available

Resource Name: NeuronUnit

Resource ID: SCR_015634

Record Creation Time: 20220129T080326+0000

Record Last Update: 20260728T043504+0000

Ratings and Alerts

No rating or validation information has been found for NeuronUnit.

No alerts have been found for NeuronUnit.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 4 mentions in open access literature.

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

Takács V, et al. (2024) Synaptic and dendritic architecture of different types of hippocampal somatostatin interneurons. PLoS biology, 22(3), e3002539.

Birgiolas J, et al. (2023) NeuroML-DB: Sharing and characterizing data-driven neuroscience models described in NeuroML. PLoS computational biology, 19(3), e1010941.

Tomko M, et al. (2021) A new reduced-morphology model for CA1 pyramidal cells and its validation and comparison with other models using HippoUnit. Scientific reports, 11(1), 7615.

Sáray S, et al. (2021) HippoUnit: A software tool for the automated testing and systematic comparison of detailed models of hippocampal neurons based on electrophysiological data. PLoS computational biology, 17(1), e1008114.