

Resource Summary Report

Generated by SPARC SAWG on Sep 18, 2026

DOQCS - Database of Quantitative Cellular Signaling

RRID:SCR_007284

Type: Tool

Proper Citation

DOQCS - Database of Quantitative Cellular Signaling (RRID:SCR_007284)

Resource Information

URL: <http://doqcs.ncbs.res.in>

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Description: A repository of models of signaling pathways that includes reaction schemes, concentrations, rate constants, as well as annotations on the models. The database provides a range of search, navigation, and comparison functions.

Abbreviations: DOQCS

Resource Type: data or information resource, database

Keywords: cellular, molecular, model, simulation, cell signaling, signaling pathway

Resource Name: DOQCS - Database of Quantitative Cellular Signaling

Resource ID: SCR_007284

Alternate IDs: nif-0000-00047

Record Creation Time: 20220129T080240+0000

Record Last Update: 20260912T200146+0000

Ratings and Alerts

No rating or validation information has been found for DOQCS - Database of Quantitative Cellular Signaling.

No alerts have been found for DOQCS - Database of Quantitative Cellular Signaling.

Data and Source Information

Usage and Citation Metrics

We found 10 mentions in open access literature.

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

Linkevicius D, et al. (2025) Fitting and comparison of calcium-calmodulin kinetic schemes to a common data set using non-linear mixed effects modelling. PloS one, 20(2), e0318646.

Manninen T, et al. (2018) Challenges in Reproducibility, Replicability, and Comparability of Computational Models and Tools for Neuronal and Glial Networks, Cells, and Subcellular Structures. Frontiers in neuroinformatics, 12, 20.

Bhalla US, et al. (2017) Synaptic input sequence discrimination on behavioral timescales mediated by reaction-diffusion chemistry in dendrites. eLife, 6.

Mai Z, et al. (2013) Random parameter sampling of a generic three-tier MAPK cascade model reveals major factors affecting its versatile dynamics. PloS one, 8(1), e54441.

Manninen T, et al. (2011) Modeling signal transduction leading to synaptic plasticity: evaluation and comparison of five models. EURASIP journal on bioinformatics & systems biology, 2011(1), 797250.

Manninen T, et al. (2010) Postsynaptic signal transduction models for long-term potentiation and depression. Frontiers in computational neuroscience, 4, 152.

Bhalla US, et al. (2004) Signaling in small subcellular volumes. II. Stochastic and diffusion effects on synaptic network properties. Biophysical journal, 87(2), 745.

Bhalla US, et al. (2003) Temporal computation by synaptic signaling pathways. Journal of chemical neuroanatomy, 26(2), 81.

Bhalla US, et al. (2002) Mechanisms for temporal tuning and filtering by postsynaptic signaling pathways. Biophysical journal, 83(2), 740.

Mishra J, et al. (2002) Simulations of inositol phosphate metabolism and its interaction with InsP(3)-mediated calcium release. Biophysical journal, 83(3), 1298.