Resource Summary Report

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Biochemical Pathways Reaction Kinetics Database

RRID:SCR_002122
Type: Tool

Proper Citation

Biochemical Pathways Reaction Kinetics Database (RRID:SCR_002122)

Resource Information

URL: https://sabiork.h-its.org/

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Description: A database based on the SABIO relational database that contains information about biochemical reactions, their kinetic equations with their parameters, and the experimental conditions under which these parameters were measured. It aims to support modelers in the setting-up of models of biochemical networks, but it is also useful for experimentalists or researchers with interest in biochemical reactions and their kinetics. SABIO-RK contains and merges information about reactions such as reactants and modifiers, organism, tissue and cellular location, as well as the kinetic properties of the reactions. The type of the kinetic mechanism, modes of inhibition or activation, and corresponding rate equations are presented together with their parameters and measured values, specifying the experimental conditions under which these were determined. Links to other databases are provided for users to gather further information and to refer to the original publication. Information about reactions and their kinetic data can be exported to an SBML file. The reaction kinetics data are obtained by manual extraction from literature sources and curated.

Abbreviations: SABIO RK

Synonyms: Reaction Kinetics Database, SABIO-RK, System for the Analysis of Biochemical Pathways - Reaction Kinetics Database, System for Analysis of Biochemical Pathways Reaction Kinetics Database

Resource Type: data or information resource, database

Keywords: database, pathway analysis, biochemical, reaction, kinetics, experiment, modeler

Funding: Klaus Tschira Foundation ;
German BMBF

Availability: Free, Freely Available

Resource Name: Biochemical Pathways Reaction Kinetics Database

Resource ID: SCR_002122

Alternate IDs: r3d100011052, nif-0000-20912

Old URLs: http://sabio.villa-bosch.de/

License URLs: http://sabio.villa-bosch.de/layouts/content/termscondition.gsp

Record Creation Time: 20220129T080211+0000

Record Last Update: 20260905T133116+0000

Ratings and Alerts

No rating or validation information has been found for Biochemical Pathways Reaction Kinetics Database.

No alerts have been found for Biochemical Pathways Reaction Kinetics Database.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 10 mentions in open access literature.

Listed below are recent publications. The full list is available at PRECISE-TBI .

Alwer S, et al. (2026) KinForm: kinetics-informed feature optimised representation models for enzyme kcat and KM prediction. NPJ systems biology and applications, 12(1).

Martins Dos Santos V, et al. (2022) Systems Biology in ELIXIR: modelling in the spotlight. F1000Research, 11.

Ogilvie LA, et al. (2015) Predictive Modeling of Drug Treatment in the Area of Personalized Medicine. Cancer informatics, 14(Suppl 4), 95.

Hill CB, et al. (2015) Metabolomics, Standards, and Metabolic Modeling for Synthetic Biology in Plants. Frontiers in bioengineering and biotechnology, 3, 167.

Smallbone K, et al. (2013) A model of yeast glycolysis based on a consistent kinetic characterisation of all its enzymes. FEBS letters, 587(17), 2832.

Alc??ntara R, et al. (2012) Rhea--a manually curated resource of biochemical reactions. Nucleic acids research, 40(Database issue), D754.

Li P, et al. (2010) Systematic integration of experimental data and models in systems biology. BMC bioinformatics, 11, 582.

Beard DA, et al. (2009) CellML metadata standards, associated tools and repositories. Philosophical transactions. Series A, Mathematical, physical, and engineering sciences, 367(1895), 1845.

Lister A, et al. (2009) Interfacing systems biology and synthetic biology. Genome biology, 10(6), 309.

Jiang N, et al. (2007) A kinetic core model of the glucose-stimulated insulin secretion network of pancreatic beta cells. Mammalian genome : official journal of the International Mammalian Genome Society, 18(6-7), 508.