

Resource Summary Report

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Reactome

RRID:SCR_003485

Type: Tool

Proper Citation

Reactome (RRID:SCR_003485)

Resource Information

URL: <http://www.reactome.org>

Proper Citation: Reactome (RRID:SCR_003485)

Description: Collection of pathways and pathway annotations. The core unit of the Reactome data model is the reaction. Entities (nucleic acids, proteins, complexes and small molecules) participating in reactions form a network of biological interactions and are grouped into pathways (signaling, innate and acquired immune function, transcriptional regulation, translation, apoptosis and classical intermediary metabolism) . Provides website to navigate pathway knowledge and a suite of data analysis tools to support the pathway-based analysis of complex experimental and computational data sets.

Synonyms: Reactome Functional Interaction Network

Resource Type: production service resource, data analysis service, service resource, database, analysis service resource, data or information resource

Defining Citation: [PMID:21082427](#), [PMID:21067998](#)

Keywords: pathway, interaction, reaction, nucleic acid, protein, complex, small molecule, signaling pathway, immune function, transcriptional regulation, translation, apoptosis, metabolism, ortholog, visualization, protein-protein interaction, web service, book, biomart, gold standard, bio.tools, FASEB list

Funding: Ontario Research Fund ;
European Molecular Biology Laboratory ;
NHGRI P41 HG003751;
European Union FP6 ENFIN LSHG-CT-2005-518254;
NIGMS GM080223;
NIGMS R01 GM100039

Availability: Open source, Public, Freely available

Resource Name: Reactome

Resource ID: SCR_003485

Alternate IDs: r3d100010285, nif-0000-03390, biotools:reactome

Alternate URLs: <https://bio.tools/reactome>, <https://doi.org/10.17616/R3V59P>

Record Creation Time: 20220129T080219+0000

Record Last Update: 20260804T043216+0000

Ratings and Alerts

No rating or validation information has been found for Reactome.

No alerts have been found for Reactome.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 4282 mentions in open access literature.

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

Vitantonio AT, et al. (2026) Calorie Restriction Attenuates Transcriptional Aging Signatures in White Matter Oligodendrocytes and Immune Cells of the Monkey Brain. Aging cell, 25(1), e70298.

Makhmut A, et al. (2026) Spatial proteomics of ovarian cancer precursors delineates early disease changes and drug targets. Molecular systems biology, 22(1), 7.

Jia X, et al. (2026) Longitudinal Profiling of DNA Methylation Reveals Age-Varying CpG Sites and Novel Insights Into Aging Heterogeneity. Aging cell, 25(1), e70362.

Panagopoulou M, et al. (2026) Novel methylation biomarkers in liquid biopsy and classifying biosignatures for the clinical management of breast cancer. Breast cancer research : BCR, 28(1), 1.

Daniel MM, et al. (2026) Integrative Bioinformatics Reveals Novel Molecular Mechanisms and Therapeutic Targets in Acute Myeloid Leukaemia. Journal of cellular and molecular medicine, 30(1), e71007.

Li J, et al. (2026) NEDD4 regulates VEGF signaling and mTOR to promote angiogenesis and the cell cycle in steroid-induced osteonecrosis of the femoral head. Molecular medicine reports, 33(1).

Yan Y, et al. (2026) A novel mouse cell line model reveals the tumor intrinsic and immune characteristics of EGFR-mutant lung cancer. *Theranostics*, 16(2), 1006.

Yilmaz V, et al. (2026) Comparative Transcriptomic Profiling Identifies IL-1 β as a Non-Canonical Driver of Human Dendritic Cell Maturation. *Iranian journal of biotechnology*, 24(1), e4185.

VandenHeuvel SN, et al. (2025) Decellularized Extracellular Matrix Scaffolds to Engineer the Dormant Landscape of Microscopic Colorectal Cancer Liver Metastasis. *Advanced healthcare materials*, e01791.

Kyriacou C, et al. (2025) Maternal plasma microRNAs as potential biomarkers for triaging pregnancies of unknown location and ectopic pregnancy diagnosis. *Non-coding RNA research*, 13, 162.

Respekta-Dugosz N, et al. (2025) Integrated Transcriptomic and Proteomic Analysis of Omentin-1 Effects on Primary Anterior Pituitary Cells From Different Pig Breeds: An In Vitro Study. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*, 39(19), e71081.

Masschelin PM, et al. (2025) Islet single-cell transcriptomic profiling during obesity-induced beta cell expansion in female mice. *iScience*, 28(3), 112031.

Yee PS, et al. (2025) Interferon-Inducible ADAR1 p150 Is Essential for the Survival of Oral Squamous Cell Carcinoma. *Molecular carcinogenesis*, 64(6), 1066.

Grätz C, et al. (2025) Extracellular vesicle-associated transcriptomic and proteomic biomarkers show in vitro potential for vandetanib treatment monitoring in anaplastic thyroid cancer. *Scientific reports*, 15(1), 32464.

Mitsuyasu Barbosa B, et al. (2025) Deciphering the Heterogeneity of Pancreatic Cancer: DNA Methylation-Based Cell Type Deconvolution Unveils Distinct Subgroups and Immune Landscapes. *Epigenomes*, 9(3).

Ali M, et al. (2025) Multi-cohort cerebrospinal fluid proteomics identifies robust molecular signatures across the Alzheimer disease continuum. *Neuron*, 113(9), 1363.

Ramamoorthi G, et al. (2025) Antitumor CD4 $^{+}$ T Helper 1 Cells Target and Control the Outgrowth of Disseminated Cancer Cells. *Cancer immunology research*, 13(5), 729.

Zhou N, et al. (2025) Proteomic patterns associated with ketamine response in major depressive disorders. *Cell biology and toxicology*, 41(1), 26.

Castro-Arnau J, et al. (2025) Post-testicular spermatozoa of a marine teleost can conduct de novo cytoplasmic and mitochondrial translation. *iScience*, 28(1), 111537.

Antysheva Z, et al. (2025) Machine learning-based single-sample molecular classifier for cancer grading. *Frontiers in oncology*, 15, 1617898.