

Resource Summary Report

Generated by [RRID](#) on Sep 8, 2026

RBL-2H3

RRID:CVCL_0591

Type: Cell Line

Proper Citation

RRID:CVCL_0591

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_0591

Proper Citation: RRID:CVCL_0591

Description: Cell line RBL-2H3 is a Cancer cell line with a species of origin Rattus norvegicus (Rat)

Disease: Rat leukemia

Defining Citation: [PMID:2940298](#), [PMID:3262677](#), [PMID:6166481](#), [PMID:6173265](#), [PMID:17210052](#), [PMID:19301096](#), [PMID:19669619](#), [PMID:25149487](#), [PMID:36125550](#)

Comments: Characteristics: Compound 48/80 which is used to promote mast cell degranulation is toxic to this cell line (DOI=10.57844/arcadia-3207-4695)., Characteristics: Degranulates as a consequence of Fc-epsilon-R stimulation. Histamine-releasing (PubMed=19669619).

Category: Cancer cell line

Organism: Rattus norvegicus (Rat)

Name: RBL-2H3

Synonyms: RBL2H3, RBL 2H3, RBL.2H3

Cross References: BTO:BTO_0000833, CLO:CLO_0008763, CLO:CLO_0051024, MCCL:MCC:0000394, AddexBio:C0003007/376, ATCC:CRL-2256, BCRC:60310, CCRID:1101RAT-PUMC000817, CCRID:3101RATSCSP518, CCRID:3101RATTCT7, CCRID:4201SWI-CCTCC00213, CCTCC:GDC0213, ChEMBL-Cells:ChEMBL3307666, ChEMBL-Targets:ChEMBL614632, CLS:305194, DSMZ:ACC-312, DSMZCellDive:ACC-312, JCRB:JCRB0023, KCB:KCB 2018046YJ, KCLB:22256, Lonza:1035, NCBI_Iran:C536, PubChem_Cell_line:CVCL_0591, RCB:RCB2782, TKG:TKG 0321, Wikidata:Q54949346

ID: CVCL_0591

Hierarchy: cvcl_e3p7

Record Creation Time: 20220427T221452+0000

Record Last Update: 20260905T182200+0000

Ratings and Alerts

No rating or validation information has been found for RBL-2H3.

No alerts have been found for RBL-2H3.

Data and Source Information

Source: [CelloSaurus](#)

Usage and Citation Metrics

We found 571 mentions in open access literature.

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

Wang Y, et al. (2026) γ -Linolenic acid suppresses Th17 cell differentiation to mitigate allergic rhinitis by binding to Lyn kinase in mast cells. *British journal of pharmacology*, 183(12), 3234.

Omari-Manaa S, et al. (2026) Distinct phosphoinositide signatures orchestrate Fc γ RI versus MRGPRX2 mast cell secretion. *iScience*, 29(4), 115457.

Squair DR, et al. (2026) ZNFX1 uses two-component ubiquitin circuitry to quarantine viral RNA. *Molecular cell*, 86(6), 1164.

Ha DT, et al. (2026) Anti-Allergic and Anti-Inflammatory Activities of a New Benzodioxane Derivative and Phenolic Compounds From *Pharbitis nil* Seeds. *Chemistry & biodiversity*, 23(5), e02992.

Leipe A, et al. (2026) Pharmacological modulation of TRPV2 enhances migration and induces Immunoglobulin E (IgE)-independent degranulation of mast cells. *Cell calcium*, 136, 103166.

Moreno-Ballesteros R, et al. (2025) Site-resolved assessment of targeted protein degradation. *Cell chemical biology*, 32(7), 969.

Choi HW, et al. (2025) Platelet-mediated activation of perivascular mast cells triggers progression of sepsis to septic shock in mice. *Nature communications*, 17(1), 270.

Bauer R, et al. (2024) NLRP3 promotes allergic responses to birch pollen extract in a model of intranasal sensitization. *Frontiers in immunology*, 15, 1393819.

Omari S, et al. (2024) Mast cell secretory granule fusion with amphisomes coordinates their homotypic fusion and release of exosomes. *Cell reports*, 43(7), 114482.

Chua XL, et al. (2024) Competition and synergy of Arp2/3 and formins in nucleating actin waves. *Cell reports*, 43(7), 114423.

Xie XB, et al. (2024) To activate NAD(P)H oxidase with a brief pulse of photodynamic action. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*, 38(23), e70246.

Shelby SA, et al. (2023) Membrane phase separation drives responsive assembly of receptor signaling domains. *Nature chemical biology*.

Pavlyuchenkova AN, et al. (2023) The Distinct Effects of the Mitochondria-Targeted STAT3 Inhibitors Mitocur-1 and Mitocur-3 on Mast Cell and Mitochondrial Functions. *International journal of molecular sciences*, 24(2).

Kim TY, et al. (2023) *Nymphoides peltata* Root Extracts Improve Atopic Dermatitis by Regulating Skin Inflammatory and Anti-Oxidative Enzymes in 2,4-Dinitrochlorobenzene (DNCB)-Induced SKH-1 Hairless Mice. *Antioxidants (Basel, Switzerland)*, 12(4).

Ye X, et al. (2023) Characterization of the Molecular Diversity and Degranulation Activity of Mastoparan Family Peptides from Wasp Venoms. *Toxins*, 15(5).

Guo Y, et al. (2023) GEF-H1 Transduces Fc γ RI Signaling in Mast Cells to Activate RhoA and Focal Adhesion Formation during Exocytosis. *Cells*, 12(4).

Yang Q, et al. (2023) Effects of methylglyoxal on shrimp tropomyosin structure and allergenicity during thermal processing. *Food chemistry: X*, 17, 100532.

Kim YY, et al. (2023) Oleanolic Acid Acetate Inhibits Mast Cell Activation in Ovalbumin-Induced Allergic Airway Inflammation. *Allergy, asthma & immunology research*, 15(2), 214.

Anqi L, et al. (2023) Molecular docking, network pharmacology and experimental verification to explore the mechanism of Wulongzhiyangwan in the treatment of pruritus. *Scientific reports*, 13(1), 361.

Lim S, et al. (2023) *Rosa davurica* Inhibited Allergic Mediators by Regulating Calcium and Histamine Signaling Pathways. *Plants (Basel, Switzerland)*, 12(7).