

Resource Summary Report

Generated by [RRID](#) on Sep 1, 2026

HMC-1

RRID:CVCL_0003

Type: Cell Line

Proper Citation

RRID:CVCL_0003

Cell Line Information

URL: https://web.expasy.org/cellosaurus/CVCL_0003

Proper Citation: RRID:CVCL_0003

Description: Cell line HMC-1 is a Cancer cell line with a species of origin Homo sapiens (Human)

Sex: Male

Disease: Mast cell leukemia

Defining Citation: [PMID:3131594](#), [PMID:7691885](#), [PMID:8191224](#), [PMID:8950460](#), [PMID:16957166](#), [PMID:25149487](#)

Comments: Part of: Human Protein Atlas, Cell Atlas panel.

Category: Cancer cell line

Organism: Homo sapiens (Human)

Name: HMC-1

Synonyms: HMC1

Cross References: BTO:BTO_0001669, MCCL:MCC:0000199, BioSample:SAMN03473342, cancercellines:CVCL_0003, ChEMBL-Cells:ChEMBL4295401, ChEMBL-Targets:ChEMBL4296432, Cosmic:821806, Cosmic:821913, Cosmic:822147, Cosmic:1122161, DSMZ:ACC-283, DSMZCellDive:ACC-283, GEO:GSM7701425, GEO:GSM7701438, Lonza:502, PubChem_Cell_line:CVCL_0003, TOKU-E:3534, Wikidata:Q54889906

ID: CVCL_0003

Record Creation Time: 20220427T220436+0000

Ratings and Alerts

No rating or validation information has been found for HMC-1.

Warning: Discontinued: DSMZ; ACC-283
Part of: Human Protein Atlas, Cell Atlas panel.

Data and Source Information

Source: [Cellosaurus](#)

Usage and Citation Metrics

We found 237 mentions in open access literature.

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

Tang Q, et al. (2025) SENP3 Promotes Hepatocyte Steatosis via De-SUMOylation of SREBP2. Cell biochemistry and function, 43(11), e70141.

Sulsenti R, et al. (2024) Intracellular Osteopontin Promotes the Release of TNF α by Mast Cells to Restrain Neuroendocrine Prostate Cancer. Cancer immunology research, 12(9), 1147.

Savage A, et al. (2023) The mast cell exosome-fibroblast connection: A novel pro-fibrotic pathway. Frontiers in medicine, 10, 1139397.

Kim HY, et al. (2023) Expression of SARS-CoV-2 receptor angiotensin-converting enzyme 2 by activating protein-1 in human mast cells. Cellular immunology, 386, 104705.

Hou Y, et al. (2023) Increased tumor-associated mast cells facilitate thyroid cancer progression by inhibiting CD8 $^{+}$ T cell function through galectin-9. Brazilian journal of medical and biological research = Revista brasileira de pesquisas medicas e biologicas, 56, e12370.

Bandara G, et al. (2023) CRISPR/Cas9-engineering of HMC-1.2 cells renders a human mast cell line with a single D816V-KIT mutation: An improved preclinical model for research on mastocytosis. Frontiers in immunology, 14, 1078958.

Han NR, et al. (2023) The Protective Effect of a Functional Food Consisting of Astragalus membranaceus, Trichosanthes kirilowii, and Angelica gigas or Its Active Component Formononetin against Inflammatory Skin Disorders through Suppression of TSLP via MDM2/HIF1 α Signaling Pathways. Foods (Basel, Switzerland), 12(2).

Choi YJ, et al. (2023) Lung-specific MCEMP1 functions as an adaptor for KIT to promote SCF-mediated mast cell proliferation. Nature communications, 14(1), 2045.

- Xian S, et al. (2023) Echinococcus multilocularis Calreticulin Interferes with C1q-Mediated Complement Activation. *Tropical medicine and infectious disease*, 8(1).
- Kim HY, et al. (2023) Caudatin attenuates inflammatory reaction by suppressing JNK/AP-1/NF- κ B/caspase-1 pathways in activated HMC-1 cells. *Food science and biotechnology*, 32(8), 1101.
- Li J, et al. (2023) PD-1+ mast cell enhanced by PD-1 blocking therapy associated with resistance to immunotherapy. *Cancer immunology, immunotherapy : CII*, 72(3), 633.
- Proaño-Pérez E, et al. (2023) MITF Downregulation Induces Death in Human Mast Cell Leukemia Cells and Impairs IgE-Dependent Degranulation. *International journal of molecular sciences*, 24(4).
- Mancini M, et al. (2023) SETD2 non genomic loss of function in advanced systemic mastocytosis is mediated by an Aurora kinase A/MDM2 axis and can be therapeutically targeted. *Biomarker research*, 11(1), 29.
- Franke K, et al. (2023) Clorf186/RHEX Is a Negative Regulator of SCF/KIT Signaling in Human Skin Mast Cells. *Cells*, 12(9).
- Spiekman M, et al. (2022) Autologous Lipofilling Improves Clinical Outcome in Patients With Symptomatic Dermal Scars Through Induction of a Pro-Regenerative Immune Response. *Aesthetic surgery journal*, 42(4), NP244.
- Hou Y, et al. (2022) Design and synthesis of first environment-sensitive coumarin fluorescent agonists for MrgX2. *International journal of biological macromolecules*, 203, 481.
- Zhang Z, et al. (2022) The protective effects of allopurinol against IL-17A-induced inflammatory response in mast cells. *Molecular immunology*, 141, 53.
- Fang X, et al. (2022) Thrombin induces pro-inflammatory and anti-inflammatory cytokines secretion from human mast cell line (HMC-1) via protease-activated receptors. *Molecular immunology*, 141, 60.
- Chen Q, et al. (2022) Tanshinone IIA alleviates ovalbumin-induced allergic rhinitis symptoms by inhibiting Th2 cytokine production and mast cell histamine release in mice. *Pharmaceutical biology*, 60(1), 326.
- Zhang N, et al. (2022) Insights into Early-Pregnancy Mechanisms: Mast Cells and Chymase CMA1 Shape the Phenotype and Modulate the Functionality of Human Trophoblast Cells, Vascular Smooth-Muscle Cells and Endothelial Cells. *Cells*, 11(7).