

Resource Summary Report

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MAST

RRID:SCR_016340

Type: Tool

Proper Citation

MAST (RRID:SCR_016340)

Resource Information

URL: <https://bioconductor.org/packages/release/bioc/html/MAST.html>

Proper Citation: MAST (RRID:SCR_016340)

Description: Software as an open source package for assessing transcriptional changes and characterizing heterogeneity in single-cell RNA sequencing data.

Abbreviations: MAST

Synonyms: Model based Analysis of Single Cell Transcriptomics

Resource Type: software application, data analysis software, software resource, data processing software, software toolkit

Defining Citation: [DOI:10.5281/zenodo.18539](https://doi.org/10.5281/zenodo.18539)

Keywords: model, based, analysis, single, cell, transcriptomics, RNA, sequencing, data

Funding: NIH DP2 DE023321;
NIBIB R01 EB008400;
Bill and Melinda Gates Foundation OPP1032317

Availability: Free, Available for download, Freely available

Resource Name: MAST

Resource ID: SCR_016340

Alternate URLs: <https://github.com/RGLab/MAST/>

License: GPL

Record Creation Time: 20220129T080330+0000

Record Last Update: 20260729T044411+0000

Ratings and Alerts

No rating or validation information has been found for MAST.

No alerts have been found for MAST.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 86 mentions in open access literature.

Listed below are recent publications. The full list is available at [kravitz2](#) .

Mol?? MA, et al. (2026) Modeling human embryo implantation in vitro. Cell, 189(1), 87.

Ennis CS, et al. (2025) Plasma exosomes from individuals with type 2 diabetes drive breast cancer aggression in patient-derived organoids. Communications biology, 8(1), 1276.

Wen X, et al. (2025) Longitudinal single cell profiling of epitope specific memory CD4+ T cell responses to recombinant zoster vaccine. Nature communications, 16(1), 2332.

Huang R, et al. (2025) Comparative single-cell transcriptomic profiling of patient-derived renal carcinoma cells in cellular and animal models of kidney cancer. FEBS open bio, 15(7), 1124.

Sobrinho S, et al. (2025) Severe inflammation and lineage skewing are associated with poor engraftment of engineered hematopoietic stem cells in patients with sickle cell disease. Nature communications, 16(1), 3137.

Chaney CP, et al. (2025) Integration of spatial and single-nucleus transcriptomics to map gene expression in the developing mouse kidney. Development (Cambridge, England), 152(24).

Ali MM, et al. (2025) Mechanisms of mitochondrial reactive oxygen species action in bone mesenchymal cells. The Journal of biological chemistry, 301(9), 110551.

Kroehling L, et al. (2025) A highly resolved integrated single-cell atlas of HPV-negative head and neck cancer. bioRxiv : the preprint server for biology.

Ali MM, et al. (2025) Mechanisms of mitochondrial reactive oxygen species action in bone mesenchymal cells. bioRxiv : the preprint server for biology.

Georgakis S, et al. (2025) Cellular and molecular determinants mediating the dysregulated germinal center immune dynamics in systemic lupus erythematosus. Frontiers in immunology, 16, 1530327.

Duval F, et al. (2025) Trajectories of macrophage ontogeny and reprogramming in cancer. *iScience*, 28(5), 112498.

Arya A, et al. (2025) Navigating single-cell RNA-sequencing: protocols, tools, databases, and applications. *Genomics & informatics*, 23(1), 13.

Reid MM, et al. (2025) Human brain vascular multi-omics elucidates disease-risk associations. *Neuron*.

Wenzel MC, et al. (2025) Single-cell analysis of Barrett's esophagus and carcinoma reveals cell types conferring risk via genetic predisposition. *Cell genomics*, 100980.

Schaeffer SM, et al. (2025) Hypertension-induced neurovascular and cognitive dysfunction at single-cell resolution. *Neuron*.

Pech U, et al. (2025) Synaptic deregulation of cholinergic projection neurons causes olfactory dysfunction across five fly Parkinsonism models. *eLife*, 13.

Greene M, et al. (2025) A developmental program of early residency promotes the differentiation of divergent uterine NK cell subsets in humans. *bioRxiv : the preprint server for biology*.

Matera A, et al. (2025) Microglial lipid phosphatase SHIP1 limits complement-mediated synaptic pruning in the healthy developing hippocampus. *Immunity*, 58(1), 197.

Bharti S, et al. (2025) Single-cell transcriptome atlas of adult male and female human hookworm *Ancylostoma ceylanicum*. *iScience*, 28(11), 113846.

Zhao A, et al. (2024) Appropriate glycemic management protects the germline but not the uterine environment in hyperglycemia. *EMBO reports*, 25(4), 1752.