

Resource Summary Report

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UCell

RRID:SCR_027109

Type: Tool

Proper Citation

UCell (RRID:SCR_027109)

Resource Information

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

Proper Citation: UCell (RRID:SCR_027109)

Description: Software package for evaluating gene signatures in single-cell datasets. UCell signature scores, based on the Mann-Whitney U statistic, are robust to dataset size and heterogeneity, and their calculation demands less computing time and memory than other available methods, enabling the processing of large datasets in a few minutes even on machines with limited computing power. UCell can be applied to any single-cell data matrix, and includes functions to directly interact with SingleCellExperiment and Seurat objects.

Resource Type: software toolkit, software resource

Defining Citation: [PMID:34285779](#)

Keywords: evaluating gene signatures, single-cell datasets, gene set scoring for single-cell data,

Availability: Free, Available for download, Freely available

Resource Name: UCell

Resource ID: SCR_027109

Alternate URLs: <https://github.com/carmonalab/UCell>

License: GNU GPL v3

Record Creation Time: 20250627T054457+0000

Record Last Update: 20260810T040936+0000

Ratings and Alerts

No rating or validation information has been found for UCell.

No alerts have been found for UCell.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 24 mentions in open access literature.

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

Williams JS, et al. (2026) Patient-derived pediatric brain tumor orthotopic xenografts and tumor organoids faithfully recapitulate primary tumors. *Science advances*, 12(16), eaea4966.

Zherka I, et al. (2026) The complement system contributes to the immunosuppressive microenvironment of uveal melanoma. *Journal of translational medicine*, 24(1).

Ralston CQ, et al. (2026) Comparative single-cell atlases reveal injury-driven tubal epithelial regeneration as a window for ovarian carcinoma initiation. *bioRxiv : the preprint server for biology*.

Xia Z, et al. (2026) PI3K and MAPK Signaling Nodes Serve as Divergent Drivers of Phenotypic Plasticity in Cancer-Associated Fibroblasts in Colorectal Cancer. *Cancer research*, 86(12), 3040.

Toropov AL, et al. (2026) The Role of Senescence in the Step-by-Step Development of Endometrial Cancer. *International journal of molecular sciences*, 27(5).

Fan X, et al. (2026) A Perturb-seq screen guided by species divergence uncovers pathways for collateral artery formation. *bioRxiv : the preprint server for biology*.

Chalkidi N, et al. (2026) Notch3 regulates pericyte phenotypic plasticity in colorectal cancer. *Communications biology*, 9(1).

Ciernik L, et al. (2026) Robust and efficient annotation of cell states through gene signature scoring. *Genome research*, 36(3), 630.

Tabilas C, et al. (2026) Single-cell gene expression and TCR profiling reveal age-related differences in recent thymic emigrants. *iScience*, 29(5), 115582.

Lohbihler M, et al. (2026) Human pluripotent stem cell-derived atrioventricular node-like pacemaker cells exhibit biological conduction bridge properties. *Cell stem cell*, 33(4), 571.

Myeong J, et al. (2025) Microbial metabolites control self-renewal and precancerous progression of human cervical stem cells. *Nature communications*, 16(1), 2327.

Jin H, et al. (2025) The landscape of dynamic tumor immunophenotyping on neoadjuvant chemotherapy combined with trastuzumab for the treatment of HER2-positive breast cancer. *Molecular cancer*, 24(1), 287.

Yang J, et al. (2025) Single-cell RNA profiling reveals an immunosuppressive microenvironment in EGFR double-mutant non-small cell lung cancer. *Translational lung cancer research*, 14(10), 4235.

Hrncir HR, et al. (2025) Sox9 inhibits Activin A to promote biliary maturation and branching morphogenesis. *Nature communications*, 16(1), 1667.

Tu H, et al. (2025) Young fibroblast-derived migrasomes alleviate keratinocyte senescence and enhance wound healing in aged skin. *Journal of nanobiotechnology*, 23(1), 200.

Shen J, et al. (2025) Biomarkers of pediatric Epstein-Barr virus-associated hemophagocytic lymphohistiocytosis through single-cell transcriptomics. *Nature communications*, 16(1), 6888.

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

Saleem MU, et al. (2025) Novel Insights into T-Cell Exhaustion and Cancer Biomarkers in PDAC Using ScRNA-Seq. *Biology*, 14(8).

Prakash PG, et al. (2025) Single-cell atlas of cervical organoids uncovers epithelial immune heterogeneity and intercellular cross-talk during Chlamydia infection. *Science advances*, 11(40), eady1640.

Korleski J, et al. (2025) Multipronged SMAD pathway targeting by lipophilic poly(??-amino ester) miR-590-3p nanomiRs inhibits mesenchymal glioblastoma growth and prolongs survival. *Signal transduction and targeted therapy*, 10(1), 145.