

Resource Summary Report

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AUCell

RRID:SCR_021327

Type: Tool

Proper Citation

AUCell (RRID:SCR_021327)

Resource Information

URL: <https://bioconductor.org/packages/AUCell/>

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Description: Software R package to identify cells with active gene sets in single cell RNA-seq data. Used for analysis of gene set activity in single cell RNA-seq data.Used to calculate whether critical subset of input gene set is enriched within expressed genes for each cell.

Synonyms: Area Under the Curve

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

Keywords: Identify cells with active gene sets, single cell RNA-seq data, gene set activity analysis

Availability: Free, Available for download, Freely available

Resource Name: AUCell

Resource ID: SCR_021327

License: GPL v3

Record Creation Time: 20220129T080354+0000

Record Last Update: 20260731T043055+0000

Ratings and Alerts

No rating or validation information has been found for AUCell.

No alerts have been found for AUCell.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 40 mentions in open access literature.

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

Li Y, et al. (2025) Single-Cell Transcriptomic Landscape Deciphers Intratumoral Heterogeneity and Subtypes of Acral and Mucosal Melanomas. *Clinical cancer research : an official journal of the American Association for Cancer Research*, 31(12), 2495.

Hu Y, et al. (2025) Accurate Transcription Factor Activity Inference to Decipher Cell Identity from Single-Cell Transcriptomic Data with MetaTF. *Advanced science (Weinheim, Baden-Wurttemberg, Germany)*, 12(23), e10745.

Yao S, et al. (2025) SmartImpute is a targeted imputation framework for single-cell transcriptome data. *Cell reports methods*, 5(8), 101122.

Hu W, et al. (2025) Single-cell RNA sequencing dissects the immunosuppressive signatures in *Helicobacter pylori*-infected human gastric ecosystem. *Nature communications*, 16(1), 3903.

Williams AF, et al. (2025) DNA fragmentation factor B suppresses interferon to enable cancer persister cell regrowth. *Nature cell biology*, 27(12), 2143.

Jiang X, et al. (2025) Depletion of Effector Regulatory T Cells Associates with Major Response to Induction Dual Immune Checkpoint Blockade. *Cancer discovery*, 15(8), 1569.

Gong Z, et al. (2025) A single-cell transcriptome analysis reveals astrocyte heterogeneity and identifies CHI3L1 as a diagnostic biomarker in Parkinson's disease. *Heliyon*, 11(3), e42051.

Yu B, et al. (2025) Neonatal-Inspired Reprogramming of Microglial Pan-Programmed Cell Death Enhances Regeneration in Adult Spinal Cord Injury. *Research (Washington, D.C.)*, 8, 0759.

Chen J, et al. (2025) CD146+ CAFs mediate immunosuppression in gastric cancer via COL4A1: potential therapeutic targets. *Journal for immunotherapy of cancer*, 13(12).

Hatkevich T, et al. (2025) Gonadal sex and temperature independently influence germ cell differentiation and meiotic progression in *Trachemys scripta*. *Proceedings of the National Academy of Sciences of the United States of America*, 122(1), e2413191121.

Ju FE, et al. (2025) Integrative analysis of bulk and single-cell gene expression profiles to identify bone marrow mesenchymal cell heterogeneity and prognostic significance in multiple myeloma. *Journal of translational medicine*, 23(1), 659.

Costa-da-Silva AC, et al. (2025) Exhausted-like effector CD8 T cells mediate immune-stromal interactions at mucosal Chronic Graft-versus-Host Disease onset. *bioRxiv* : the preprint server for biology.

Allen AM, et al. (2025) A high-resolution atlas of the brain predicts lineage and birth order underlying neuronal identity. *Cell genomics*, 101103.

Jayasinghe RG, et al. (2025) Single-cell transcriptomic profiling reveals diversity in human iNKT cells across hematologic tissues. *Cell reports*, 44(5), 115587.

Xue HC, et al. (2025) A unified cell atlas of vascular plants reveals cell-type foundational genes and accelerates gene discovery. *Cell*.

Gao Y, et al. (2025) Trilaciclib triggers a neutrophil-related immune response and sensitizes non-small cell lung cancer to anti-PD-1 therapy. *Cell reports. Medicine*, 6(11), 102434.

Ligorio F, et al. (2025) Early downmodulation of tumor glycolysis predicts response to fasting-mimicking diet in triple-negative breast cancer patients. *Cell metabolism*, 37(2), 330.

Sharifi MN, et al. (2025) High-purity CTC RNA sequencing identifies prostate cancer lineage phenotypes prognostic for clinical outcomes. *Cancer discovery*, 15(5), 969.

Castresana-Aguirre M, et al. (2025) Computational decoding of cell-cycle phase effects on cancer hallmarks across breast cancer subtypes. *Breast cancer research : BCR*.

Tasis A, et al. (2024) Single-Cell Analysis of Bone Marrow CD8+ T Cells in Myeloid Neoplasms Reveals Pathways Associated with Disease Progression and Response to Treatment with Azacitidine. *Cancer research communications*, 4(12), 3067.