Resource Summary Report

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CATALYST

RRID:SCR_017127
Type: Tool

Proper Citation

CATALYST (RRID:SCR_017127)

Resource Information

URL: http://bioconductor.org/packages/CATALYST/

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Description: Software R package to provide pipeline for preprocessing of cytometry data, including normalization using bead standards, single cell deconvolution, and bead based compensation.

Synonyms: Cytometry dATa anALYSis Tools

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

Defining Citation: PMID:29605184

Keywords: preprocessing, cytometry, data, normalization, bead, standard, single, cell, deconvulsion, compensation, bio.tools

Funding: European Research Council ;
NIDDK UC4 DK108132;
PhosphonetPPM and MetastasiX SystemsX grant ;
Roche Postdoctoral Fellowship ;
SNSF Assistant Professorship grant ;
Swiss National Science Foundation

Availability: Free, Available for download, Freely available

Resource Name: CATALYST

Resource ID: SCR_017127

Alternate IDs: biotools:catalyst

Alternate URLs: https://github.com/HelenaLC/CATALYST, https://bio.tools/catalyst

License: GPL

Record Creation Time: 20220129T080333+0000

Record Last Update: 20260829T182556+0000

Ratings and Alerts

No rating or validation information has been found for CATALYST.

No alerts have been found for CATALYST.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 241 mentions in open access literature.

Listed below are recent publications. The full list is available at ASWG .

Liseth O, et al. (2026) Engagement of the TCR against an oncolytic virus generates a population of effector CAR T cells with potent antitumor activity. Science advances, 12(23), eaef5331.

P??rez-Caraballo JJ, et al. (2026) Heterogeneous immune cell composition in patients with combined immunodeficiency. Frontiers in immunology, 17, 1830231.

Lim SH, et al. (2026) Distinct Spatially Resolved Tumor Microenvironment Trajectories Define Benefit from Ramucirumab plus Pembrolizumab in Refractory PD-L1+ Gastric Cancer. Cancer immunology research, 14(2), 307.

Gupta G, et al. (2026) Boron Nitride Nanomaterials Trigger Immunomodulatory Effects in Human Broncho-Epithelial Cells by Modulating Eicosanoid Lipid Signaling. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 13(9), e16401.

Pedroza DA, et al. (2026) Anti-CSF-1R therapy with combined immuno-chemotherapy coordinate an adaptive immune response to eliminate macrophage enriched triple negative breast cancers. Nature communications, 17(1), 1193.

Zhu B, et al. (2026) Spatial Profiling Reveals Distinct Molecular and Immune Evolution of Mouse Lung Adenocarcinoma Precancers with or Without Carcinogen Exposure. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 13(17), e12597.

Rigby RE, et al. (2026) Single-cell analysis of signalling and transcriptional responses to type I interferons. EMBO reports, 27(9), 2491.

Jebson BR, et al. (2026) Altered B cell activation contributes to the immunopathogenesis of childhood arthritis-associated uveitis. Nature communications, 17(1), 714.

Rigutto A, et al. (2026) Multiplexed single-cell and spatial profiling reveal B cells and tertiary lymphoid structures as prognostic indicators in pleural mesothelioma. British journal of cancer, 135(2), 214.

Peluso MJ, et al. (2026) Correlates of HIV-1 control after combination immunotherapy. Nature, 650(8100), 187.

Lima PDA, et al. (2026) Mass cytometry reveals complex neutrophil heterogeneity in patients with severe sepsis. Intensive care medicine experimental, 14(1).

Lim SH, et al. (2026) Mass cytometry uncovers distinct blood myeloid phenotypes linked to clinical responses during gastric cancer chemoimmunotherapy. Cancer immunology, immunotherapy : CII, 75(4).

Herbrich S, et al. (2026) TET2-mutant clonal hematopoiesis enhances macrophage antigen presentation and improves immune checkpoint therapy in solid tumors. Cancer cell, 44(1), 187.

Perez KJ, et al. (2026) Phase II Trial of Cabozantinib in Combination with Nivolumab for Advanced Extrapancreatic Neuroendocrine Tumors. Clinical cancer research : an official journal of the American Association for Cancer Research, 32(3), 540.

Lee Y, et al. (2025) Segmentation aware probabilistic phenotyping of single-cell spatial protein expression data. Nature communications, 16(1), 389.

Ibidapo-Obe O, et al. (2025) Macrophage-derived IL-15 imprints peritoneal TRM-like CD8 T cells in cirrhosis and spontaneous bacterial peritonitis. JHEP reports : innovation in hepatology, 7(6), 101381.

Osborn G, et al. (2025) Hyperinflammatory repolarisation of ovarian cancer patient macrophages by anti-tumour IgE antibody, MOv18, restricts an immunosuppressive macrophage:Treg cell interaction. Nature communications, 16(1), 2903.

Silvestre C, et al. (2025) NK Count and Natural Cytotoxicity in Immune Nonresponders Versus Responders Living With HIV. Journal of medical virology, 97(2), e70170.

Wang M, et al. (2025) Comprehensive analysis of B cell repopulation in ocrelizumab-treated patients with multiple sclerosis by mass cytometry and proteomics. iScience, 28(5), 112383.

Bueno RJ, et al. (2025) Generation of decellularized human brain tissue for investigating cell-matrix interactions: a proof-of-concept study. Frontiers in bioengineering and biotechnology, 13, 1578467.