Resource Summary Report

Generated by T1D on Aug 3, 2026

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

Defining Citation: PMID:29605184

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

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

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: 20260803T040741+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 223 mentions in open access literature.

Listed below are recent publications. The full list is available at T1D .

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.

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

Chayé MAM, et al. (2025) Multi-dimensional analysis of B cells reveals the expansion of memory and regulatory B-cell clusters in humans living in rural tropical areas. Clinical and experimental immunology, 219(1).

Salié H, et al. (2025) Spatial single-cell profiling and neighbourhood analysis reveal the determinants of immune architecture connected to checkpoint inhibitor therapy outcome in hepatocellular carcinoma. Gut, 74(3), 451.

Ke H, et al. (2025) Immune profiling of the macroenvironment in colorectal cancer unveils systemic dysfunction and plasticity of immune cells. Clinical and translational medicine, 15(2), e70175.

Lo Tartaro D, et al. (2025) Metabolically activated and highly polyfunctional intratumoral VISTA+ regulatory B cells are associated with tumor recurrence in early-stage NSCLC. Molecular cancer, 24(1), 16.

Gonzalez E, et al. (2025) Cancer systems immunology reveals myeloid-T cell interactions and B cell activation mediate response to checkpoint inhibition in metastatic breast cancer. bioRxiv : the preprint server for biology.

Eling N, et al. (2025) Multi-modal image analysis for large-scale cancer tissue studies within IMMUcan. Cell reports methods, 5(9), 101170.

Karl V, et al. (2025) Limited vaccine-induced CD8+ T cell immunity in HIV-infected immunological nonresponders. JCI insight, 10(21).

Molina-García M, et al. (2025) Integrative Molecular and Immune Profiling in Advanced Unresectable Melanoma: Tumor Microenvironment and Peripheral PD-1+ CD4+ Effector Memory T-Cells as Potential Markers of Response to Immune Checkpoint Inhibitor Therapy. Cancers, 17(12).

Yassini N, et al. (2025) CD4 T Cells Acquire Innate Capability Upon Classical T Cell Activation. European journal of immunology, 55(9), e70054.

Lawson NM, et al. (2025) Recurrent ERBB2 alterations are associated with esophageal adenocarcinoma brain metastases. medRxiv : the preprint server for health sciences.

Kuett L, et al. (2025) Distant Metastases of Breast Cancer Resemble Primary Tumors in Cancer Cell Composition but Differ in Immune Cell Phenotypes. Cancer research, 85(1), 15.

Allen HI, et al. (2025) Prevalence and risk factors for milk allergy overdiagnosis in the BEEP trial cohort. Allergy, 80(1), 148.

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.

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.

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.

Ostendorf L, et al. (2025) Neutrophil Heterogeneity Identifies an Association of LAMP1 With Proliferative Lupus Nephritis. European journal of immunology, 55(8), e70022.

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.

Fonner VA, et al. (2025) PrEP choice in the real world: Results of a prospective cohort study describing uptake and use patterns of oral PrEP and the dapivirine vaginal ring among women in sub-Saharan Africa. Journal of the International AIDS Society, 28 Suppl 2(Suppl 2), e26457.