

# Resource Summary Report

Generated by [PRECISE-TBI](#) on Sep 9, 2026

## SamSPECTRAL

RRID:SCR\_001858

Type: Tool

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### Proper Citation

SamSPECTRAL (RRID:SCR\_001858)

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### Resource Information

**URL:** <http://www.bioconductor.org/packages/release/bioc/html/SamSPECTRAL.html>

**Proper Citation:** SamSPECTRAL (RRID:SCR\_001858)

**Description:** Software that identifies cell population in flow cytometry data. It demonstrates significant advantages in proper identification of populations with non-elliptical shapes, low density populations close to dense ones, minor subpopulations of a major population and rare populations. It samples large data such that spectral clustering is possible while preserving density information in edge weights. More specifically, given a matrix of coordinates as input, SamSPECTRAL first builds the communities to sample the data points. Then, it builds a graph and after weighting the edges by conductance computation, the graph is passed to a classic spectral clustering algorithm to find the spectral clusters. The last stage of SamSPECTRAL is to combine the spectral clusters. The resulting connected components estimate biological cell populations in the data sample.

**Synonyms:** SamSPECTRAL - Identifies cell population in flow cytometry data

**Resource Type:** software resource

**Defining Citation:** [PMID:20667133](#)

**Keywords:** software package, mac os x, unix/linux, windows, r, cell biology, clustering, flow cytometry, stem cell, bio.tools

**Related Condition:** Cancer, HIV

**Availability:** Free, Available for download, Freely available

**Resource Name:** SamSPECTRAL

**Resource ID:** SCR\_001858

**Alternate IDs:** OMICS\_05638, biotools:samspectral

**Alternate URLs:** <https://bio.tools/samspectral>

**License:** GNU General Public License, v2 or greater

**Record Creation Time:** 20220129T080210+0000

**Record Last Update:** 20260905T132440+0000

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## Ratings and Alerts

No rating or validation information has been found for SamSPECTRAL.

No alerts have been found for SamSPECTRAL.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 4 mentions in open access literature.

**Listed below are recent publications.** The full list is available at [PRECISE-TBI](#) .

Chen Y, et al. (2024) Benchmarking digital PCR partition classification methods with empirical and simulated duplex data. Briefings in bioinformatics, 25(3).

Bhattacharjee A, et al. (2019) Cell type-specific transcriptional programs in mouse prefrontal cortex during adolescence and addiction. Nature communications, 10(1), 4169.

Brink BG, et al. (2018) ddPCRclust: an R package and Shiny app for automated analysis of multiplexed ddPCR data. Bioinformatics (Oxford, England), 34(15), 2687.

Rahim A, et al. (2018) High throughput automated analysis of big flow cytometry data. Methods (San Diego, Calif.), 134-135, 164.