

# Package: cosmxscan (via r-universe)

October 14, 2026

**Version** 0.1.0

**Title** Rust Byte Scanner for CosMx Expression Matrices

**Description** Streams a gzipped CosMx exprMat CSV and emits nonzero triplets.

**License** MIT + file LICENSE

**Encoding** UTF-8

**SystemRequirements** Cargo (Rust's package manager), rustc

**Config/rextendr/version** 0.5.0

**Depends** R (>= 4.2)

**Config/roxygen2/version** 8.0.0

**Suggests** testthat (>= 3.0.0), R.utils

**Config/testthat/edition** 3

**Config/pak/sysreqs** libclang-dev

**Repository** <https://drieslab.r-universe.dev>

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**RemoteUrl** <https://github.com/drieslab/cosmxscan>

**RemoteRef** HEAD

**RemoteSha** c053b45629ca49b7d4e4b4c994ad624ce8efe0f5

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CosmxReader*Streaming reader over a wide CosMx exprMat CSV (.csv or .csv.gz).*

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### Description

'#[extendr]' is required on the STRUCT as well as on the impl block below. Without it extendr generates no external-pointer conversions and the impl fails to compile with "the trait bound 'CosmxReader: ToVectorValue' is not satisfied" – it falls back to treating the struct as a value to coerce into an R vector. See extendr-api's own `altrep_tests.rs`: "need to make the object '.into\_obj()'able".

### Usage

CosmxReader

### Methods

**Method 'new':** Open a scanner. '.gz' is detected by extension and inflated inline.

**Method 'next\_chunk':** Scan up to 'max\_rows' data rows, returning their nonzero triplets.

**Method 'close':** Release the file handle.

**Method 'rows\_done':** Data rows consumed so far.

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