# Package 'breakpointRdata'

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Type Package

Title Strand-seq data for demonstration purposes

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**Description** Strand-seq data to demonstrate functionalities of breakpointR package.

**Depends** R (>= 3.5)

Suggests knitr, BiocStyle,

License file LICENSE

VignetteBuilder knitr

**biocViews** ExperimentData, Homo\_sapiens\_Data, SequencingData, DNASeqData, Genome, SingleCellData

NeedsCompilation no

URL https://github.com/daewoooo/breakpointRdata

RoxygenNote 6.1.0 git\_url https://git.bioconductor.org/packages/breakpointRdata git\_branch devel git\_last\_commit d5b2792 git\_last\_commit\_date 2025-04-15 Repository Bioconductor 3.22 Date/Publication 2025-05-15

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example\_bams

#### Description

A set of BAM-files for demonstration purposes of the functions in package breakpointR.

#### Format

A BAM files with aligned reads with one read per line.

#### Details

BAM files contain single-end reads aligned to GRCh38 reference genome. Read sequences and quality values have been removed in order to reduce the file size.

#### Source

A lyphoblastoid cell line of Puerto Rican origin (HG00731). Raw reads were aligned to the GRCh38/hg38 reference assembly. The file has been downsampled to 20% of the coverage to reduce the file size.

#### References

https://www.biorxiv.org/content/early/2017/09/23/193144

example\_results Results for example BAM-files

#### Description

Localized breakpoints in example BAM-files, generated by the breakpointR package.

#### Format

Files containing BreakPoint object.

#### Details

A BreakPoint object is a list containing given elements: ID, fragments, deltas, breaks, confint, counts, lib.metrics and params.

- ID unique identifier for a given library.
- fragments A GRanges-class object that stores analyzed sequencing reads.
- deltas A GRanges-class object that stores binned minus reads differences.
- breaks A GRanges-class object that stores localized breaks.
- confint A GRanges-class object that stores confidence intervals around localized breaks.
- counts A GRanges-class object that stores directional read counts in between localized breaks.
- lib.metrics A named vector with some useful library metrics.
- params A named vector with user defined parameters used to run breakpointR package.

# $example\_results$

### Source

A lyphoblastoid cell line of Puerto Rican origin (HG00731). Raw reads were aligned to the GRCh38/hg38 reference assembly.

## References

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