# Package 'breakpointRdata'

May 23, 2024

Type Package
Title Strand-seq data for demonstration purposes
<b>Version</b> 1.23.0
<b>Date</b> 2016-08
Author David Porubsky, Aaron Taudt, Ashley Sanders
Maintainer David Porubsky <david.porubsky@gmail.com></david.porubsky@gmail.com>
<b>Description</b> Strand-seq data to demonstrate functionalities of breakpointR package.
<b>Depends</b> R (>= $3.5$ )
Suggests knitr, BiocStyle,
License file LICENSE
VignetteBuilder knitr
biocViews ExperimentData, Homo_sapiens_Data, SequencingData, DNASeqData, Genome, SingleCellData
NeedsCompilation no
<pre>URL https://github.com/daewoooo/breakpointRdata</pre>
RoxygenNote 6.1.0
git_url https://git.bioconductor.org/packages/breakpointRdata
git_branch devel
git_last_commit ef97152
git_last_commit_date 2024-04-30
Repository Bioconductor 3.20
Date/Publication 2024-05-23
Contents
example_bams
Index

2 example\_results

example\_bams

Example BAM-files

#### **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.

example\_results 3

- 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.

#### Source

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

#### References

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

## **Index**

```
bams (example_bams), 2
example_bams, 2
example_results, 2
results (example_results), 2
```