Package 'tissueTreg'

February 18, 2025

```
Title TWGBS and RNA-seq data from tissue T regulatory cells from mice Version 1.27.0
```

Author Charles Imbusch [aut, cre], Michael Delacher [aut], Markus Feuerer [aut], Benedikt Brors [aut]

VignetteBuilder knitr

Maintainer Charles Imbusch < c.imbusch@dkfz.de>

Description The package provides ready to use epigenomes (obtained from TWGBS) and transcriptomes (RNA-seq) from various tissues as obtained in the study (Delacher and Imbusch 2017, PMID: 28783152).

Regulatory T cells (Treg cells) perform two distinct functions: they maintain self-tolerance, and they support organ homeostasis by differentiating into specialized tissue Treg cells. The underlying dataset characterises the epigenetic and transcriptomic modifications for specialized tissue Treg cells.

```
Depends R (>= 3.5)
License GPL (>= 2)
Encoding UTF-8
LazyData true
Suggests BiocStyle, knitr, rmarkdown, testthat, ExperimentHub, bsseq,
SummarizedExperiment, ggplot2, reshape2
```

biocViews ExperimentData, Tissue, Mus_musculus_Data, SequencingData, RNASeqData

URL https://github.com/cimbusch/tissueTreg
RoxygenNote 6.0.1
git_url https://git.bioconductor.org/packages/tissueTreg
git_branch devel
git_last_commit_59c6ede
git_last_commit_date 2024-10-29
Repository Bioconductor 3.21

Date/Publication 2025-02-18

2 tissueTreg

Contents

	tissue Treg																		. 2
Index										3									
tissueTreg		Ер	Epigenomes and transcriptomes of tissue resident regulatory T cells														ls		

Description

The package provides ready to use epigenomes (obtained from TWGBS) and transcriptomes (RNA-seq) from various tissues. Regulatory T cells (Treg cells) perform two distinct functions: they maintain self-tolerance, and they support organ homeostasis by differentiating into specialized tissue Treg cells. The underlying dataset characterises the epigenetic and transcriptomic modifications for specialized tissue Treg cells.

Source

Delacher, M, Imbusch, CD, Weichenhan, D, Breiling, A, Hotz-Wagenblatt, A, Träger, U, Hofer, AC, Kägebein, D, Wang, Q, Frauhammer, F, Mallm, JP, Bauer, K, Herrmann, C, Lang, PA, Brors, B, Plass, C, Feuerer, M (2017). Genome-wide DNA-methylation landscape defines specialization of regulatory T cells in tissues. Nat. Immunol., 18, 10:1160-1172.

Examples

```
eh <- ExperimentHub::ExperimentHub()

# RNA-seq RPKM data:
se_rpkms <- eh[["EH1074"]]

# Whole genome bisulfite sequencing data as bsseq objects:
tregs_per_sample <- eh[["EH1072"]]
tregs_per_tissue <- eh[["EH1073"]]</pre>
```

Index

 $* \begin{tabular}{ll} * datasets \\ tissueTreg, 2 \end{tabular}$

 ${\tt tissueTreg}, {\color{red} 2}$