

# Package ‘airway’

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**Title** RangedSummarizedExperiment for RNA-Seq in airway smooth muscle cells, by Himes et al PLoS One 2014

**Version** 1.2.0

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**Description** This package provides a RangedSummarizedExperiment object of read counts in genes for an RNA-Seq experiment on four human airway smooth muscle cell lines treated with dexamethasone. Details on the gene model and read counting procedure are provided in the package vignette. The citation for the experiment is: Himes BE, Jiang X, Wagner P, Hu R, Wang Q, Klanderma B, Whitaker RM, Duan Q, Lasky-Su J, Nikolos C, Jester W, Johnson M, Panettieri R Jr, Tantisira KG, Weiss ST, Lu Q. 'RNA-Seq Transcriptome Profiling Identifies CRISPLD2 as a Glucocorticoid Responsive Gene that Modulates Cytokine Function in Airway Smooth Muscle Cells.' PLoS One. 2014 Jun 13;9(6):e99625. PMID: 24926665. GEO: GSE52778.

**biocViews** ExperimentData, SequencingData, RNASeqData, GEO

**License** LGPL

**Depends** R (>= 2.10), SummarizedExperiment

**Suggests** knitr, GEOquery

**VignetteBuilder** knitr

**git\_url** <https://git.bioconductor.org/packages/airway>

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*Airway smooth muscle cells*

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**Description**

Read counts per gene for airway smooth muscle cell lines RNA-Seq experiment

**Usage**

```
data("airway")
```

**Format**

RangedSummarizedExperiment

**Details**

For details on the gene model and read counting procedure, see the package vignette.

The dataset contains four cell lines in two conditions: control and treatment with dexamethasone.

**Source**

FASTQ files from SRA, phenotypic data from GEO

**References**

Himes BE, Jiang X, Wagner P, Hu R, Wang Q, Klanderman B, Whitaker RM, Duan Q, Lasky-Su J, Nikolos C, Jester W, Johnson M, Panettieri R Jr, Tantisira KG, Weiss ST, Lu Q. 'RNA-Seq Transcriptome Profiling Identifies CRISPLD2 as a Glucocorticoid Responsive Gene that Modulates Cytokine Function in Airway Smooth Muscle Cells.' PLoS One. 2014 Jun 13;9(6):e99625. PMID: 24926665. GEO: GSE52778.

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