

# Package ‘waveTilingData’

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**Title** waveTiling Example Data

**Version** 1.20.0

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**Description**

Experiment and Annotation Data files used by the examples / vignette in the waveTiling package

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**Depends** R (>= 2.14.0)

**License** GPL (>= 2)

**biocViews** ExperimentData, Arabidopsis\_thaliana\_Data, MicroarrayData

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waveTilingData-package

*Example datasets for the waveTiling package*

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### Description

This package contains the datasets used in the waveTiling package vignette and examples.

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### See Also

[leafdev](#), [leafdevBQ](#), [leafdevFit](#), [leafdevInfCompare](#), [leafdevMapAndFilterTAIR9](#)

### Examples

```
dataDir <- system.file("data", package="waveTilingData")
setwd(dataDir)
dir()
```

---

leafdev

*Example data*

---

### Description

Example data set (`TilingFeatureSet`) on leaf development in the plant *Arabidopsis thaliana* [1] for use of the waveTiling package. The data set contains 6553600 features and 18 samples. Transcriptome analysis was conducted for 6 developmental time points (day 8 to day 13), with 3 biological replicates per time point. The focus of the initial study was to unravel the underlying mechanisms of on one hand the transition from cell division to cell expansion and on the other hand the transition from non-photosynthetic to photosynthetic leaves.

### Usage

```
data(leafdev)
```

### References

[1] Andriankaja M, Dhondt S, De Bodt S, Vanhaeren H, Coppens F, et al. (2012) Exit from proliferation during leaf development in *Arabidopsis thaliana*: A not-so-gradual process. *Developmental Cell* 22: 64-78.

### Examples

```
data(leafdev)
```

---

`leafdevBQ`*Example data*

---

**Description**

Example data set (`TilingFeatureSet`) on leaf development in the plant *Arabidopsis thaliana* for use of the `waveTiling` package. The data are taken from [1]. The dataset contains the background-corrected and quantile-normalized expression data

**Usage**

```
data(leafdevBQ)
```

**References**

[1] Andriankaja M, Dhondt S, De Bodt S, Vanhaeren H, Coppens F, et al. (2012) Exit from proliferation during leaf development in *Arabidopsis thaliana*: A not-so-gradual process. *Developmental Cell* 22: 64-78.

**Examples**

```
data(leafdevBQ)
```

---

`leafdevFit`*Example waveTiling fit object*

---

**Description**

Example `WfmFit`-class object as output after fitting the wavelet-based functional model to the `leafdev` data for the forward strand of chromosome 1.

**Usage**

```
data(leafdevFit)
```

**Examples**

```
data(leafdevFit)
```

---

leafdevInfCompare      *Example waveTiling inference object*

---

**Description**

Example WfmInf-class object as output after transcriptome analysis of the leafdev data for the forward strand of chromosome 1, using pairwise comparisons between the different time points.

**Usage**

```
data(leafdevInfCompare)
```

**Examples**

```
data(leafdevInfCompare)
```

---

leafdevMapAndFilterTAIR9

*Example waveTiling mapFilterProbe object*

---

**Description**

Example mapFilterProbe-class object as output after filtering redundant probes (PM/MM and/or forward/reverse strand) and remapping the probes to the Arabidopsis thaliana TAIR9 genome sequence.

**Usage**

```
data(leafdevMapAndFilterTAIR9)
```

**Examples**

```
data(leafdevMapAndFilterTAIR9)
```

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