

# Package ‘faahKO’

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**Version** 1.49.1

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**Title** Saghatelian et al. (2004) FAAH knockout LC/MS data

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**Depends** R (>= 3.5)

**Imports** xcms (>= 4.5.4)

**Suggests** MSnbase (>= 2.33.3)

**ZipData** no

**Description** Positive ionization mode data in NetCDF file format.  
Centroided subset from 200-600 m/z and 2500-4500 seconds. Data  
originally reported in ``Assignment of Endogenous Substrates to Enzymes  
by Global Metabolite Profiling'' Biochemistry; 2004; 43(45). Also  
includes detected peaks in an xcmsSet.

**biocViews** ExperimentData, MassSpectrometryData

**License** LGPL

**URL** <http://dx.doi.org/10.1021/bi0480335>

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faahkoFAAH knockout LC/MS data *xcmsSet*

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## Description

*xcmsSet* object containing quantitated LC/MS peaks from the spinal cords of 6 wild-type and 6 FAAH knockout mice. The data is a subset of the original data from 200-600 m/z and 2500-4500 seconds. It was collected in positive ionization mode.

## Usage

```
data(faahko)
```

## Format

The format is:

```
Formal class 'xcmsSet' [package "xcms"] with 8 slots
 ..@ peaks      : num [1:4776, 1:11] 200 201 205 206 207 ...
 ..@ groups     : logi[0 , 0 ]
 ..@ groupidx   : list()
 ..@ sampnames  : chr [1:12] "ko15" "ko16" "ko18" "ko19" ...
 ..@ sampclass  : Factor w/ 2 levels "KO","WT": 1 1 1 1 1 1 2 2 2 2 ...
 ..@ rt         :List of 2
 .. ..$ raw      :List of 12
 .. ..$ corrected:List of 12
 ..@ filepaths  : chr [1:12] ...
 ..@ profinfo   :List of 2
 .. ..$ method  : chr "bin"
 .. ..$ step     : num 0.1
```

## Details

The corresponding raw NetCDF files are located in the *cdf* subdirectory of this package.

## Source

<http://dx.doi.org/10.1021/bi0480335>

## References

Saghatelian A, Trauger SA, Want EJ, Hawkins EG, Siuzdak G, Cravatt BF. Assignment of endogenous substrates to enzymes by global metabolite profiling. *Biochemistry*. 2004 Nov 16;43(45):14332-9.

## See Also

[xcmsSet](#), [xcmsRaw](#)

## Examples

```
## The directory with the NetCDF LC/MS files
cdfpath <- file.path(find.package("faahKO"), "cdf")
cdfpath
list.files(cdfpath, recursive = TRUE)

if (require(xcms)) {

## xcmsSet Summary
show(faahko)

## Access raw data file
ko15 <- xcmsRaw(filepaths(faahko)[1], profmethod = "bin", profstep = 0.1)
ko15

}
```

faahko3

*FAAH knockout LC/MS data XCMSnExp*

## Description

XCMSnExp object containing quantitated LC/MS peaks from the spinal cords of 6 wild-type and 6 FAAH knockout mice. The data is a subset of the original data from 200-600 m/z and 2500-4500 seconds. It was collected in positive ionization mode.

## Usage

```
data(faahko3)
```

## Format

The format is:

```
MSn experiment data ("XCMSnExp")
Object size in memory: 4.59 Mb
- - - Spectra data - - -
  MS level(s): 1
  Number of spectra: 15336
  MSn retention times: 41:32 - 75:14 minutes
- - - Processing information - - -
Data loaded [Tue Mar 24 13:28:38 2020]
  MSnbase version: 2.13.2
- - - Meta data - - -
phenoData
  rowNames: 1 2 ... 12 (12 total)
  varLabels: sample_name sample_group
  varMetadata: labelDescription
Loaded from:
  [1] ko15.CDF... [12] wt22.CDF
  Use 'fileNames(.)' to see all files.
protocolData: none
```

```
featureData
  featureNames: F01.S0001 F01.S0002 ... F12.S1278 (15336 total)
  fvarLabels: fileIdx spIdx ... spectrum (33 total)
  fvarMetadata: labelDescription
experimentData: use 'experimentData(object)'
- - - xcms preprocessing - - -
Chromatographic peak detection:
  method: centWave
  5627 peaks identified in 12 samples.
  On average 469 chromatographic peaks per sample.
Alignment/retention time adjustment:
  method: peak groups
Correspondence:
  method: chromatographic peak density
  206 features identified.
  Median mz range of features: 0.10001
  Median rt range of features: 28.965
  325 filled peaks (on average 27.08333 per sample).
```

## Details

The corresponding raw NetCDF files are located in the `cdf` subdirectory of this package.

## Source

<http://dx.doi.org/10.1021/bi0480335>

## References

Saghatelian A, Trauger SA, Want EJ, Hawkins EG, Siuzdak G, Cravatt BF. Assignment of endogenous substrates to enzymes by global metabolite profiling. *Biochemistry*. 2004 Nov 16;43(45):14332-9.

## See Also

[OnDiskMSnExp](#), [XCMSnExp](#)

## Examples

```
## The directory with the NetCDF LC/MS files
cdfpath <- file.path(find.package("faahko3"), "cdf")
cdfpath
list.files(cdfpath, recursive = TRUE)

data(faahko3)

## XCMSnExp Summary
show(faahko3)
```

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