

# Package ‘plasFIA’

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**Version** 1.0.0

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**Title** FIA-HRMS plasma dataset

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**Depends** proFIA

**ZipData** no

**Description** Positive Ionization FIA-HRMS data of human plasma spiked  
with a pool of 40 compounds acquired in FIA-HRMS mode on an  
orbitrap fusion. plasFIA also include the result of the  
processing by the proFIA package with adapted parameters for an  
Orbitrap Fusion.

**biocViews** ExperimentData, MassSpectrometryData

**License** LGPL

**NeedsCompilation** no

**RoxygenNote** 5.0.1

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plasFIA-package	<i>FIA-HRMS spiked plasma dataset.</i>
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## Description

6 samples of human plasma spiked with 3 different concentrations of molecules ranging from 10 ng/mL to 1000ng/mL in 2 replicates have been acquired on an Orbitrap Fusion. The resulting data are in the mzML directory under mzML centroid format, the proFIASet object containing the integrated signal is in the plasSet object information on the samples is in plasSamples and informations about molecules is in plasMols.

plasMols

*Information on the 40 molecules from the plasFIA package.*

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**Description**

A dataset giving the formula, the name, the class, the mass and the mass of the single-charged molecule of the plasFIA dataset.

- formula. The formula of the molecule
- names. The usual names of the molecules
- classes. The chemical family of the molecules.
- mass. The mass of the molecules.
- mass\_M+H. The mass of the signly charge ion. ...

**Usage**

```
data(plasMols)
```

**Format**

A data frame with 40 rows and 5 variables

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plasSamples

*Information on the 10 samples form the plasFIA package.*

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**Description**

A dataset giving name the replotate and the concentration in molecules in plasMols molecules of the files in the plasFIA.

- filename. The name of the file.
- concentration\_ng\_ml. The concentration in spiked molecule in ng/ML.
- classes. The chemical family of the molecules.
- replicate. A factor giving the molecules coming from the same sample. ...

**Usage**

```
data(plasSamples)
```

**Format**

A data frame with 10 rows and 3 variables

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plasSet

*Signal detected by the proFIA package in the plasFIA dataset.*

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### **Description**

A proFIASet object giving the signals detected in the mzML files of the plasFIA datasets using the analyzeAcquisitionFIA function with the following parameters :

- ppm. 2
- fracGroup. 0.2
- ppmgroup. 0.5
- k. 2

### **Usage**

```
data(plasSet)
```

### **Format**

A "proFIASet" object containing 1 classes. Missing values have been imputed. 2557 peaks detected. 629 features have been grouped. The data matrix is available. Memory usage: 0.428 MB

### **Details**

Which were adapted to an Orbitrap Fusion.

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