Package 'optimalFlowData'

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Type Package

Title optimalFlowData

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Description
Data files used as examples and for testing of the software provided in the optimalFlow package.

License Artistic-2.0

Encoding UTF-8

LazyData true

Depends R (>= 4.0)

Suggests knitr, BiocStyle, rmarkdown, magick

VignetteBuilder knitr

biocViews ExperimentData, PackageTypeData, ImmunoOncologyData, FlowCytometryData

RoxygenNote 7.1.0

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Contents

`buildDatabase` *buildDatabase*

Description

Constructs a subset of the cell types and cytometries in optimalFlowData in order to be used as a database.

Usage

```
buildDatabase(dataset_names, population_ids)
```

Arguments

dataset_names	A vector of strings with the names of the cytometries, ranging in c("Cytometry1",...,"Cytometry40").
population_ids	A vector of strings with the names of the cell types to be selected in each cytometry.

Value

A list where each element is a cytometry containing only the cell types given by population_ids.

Examples

```
database <- buildDatabase(
  dataset_names = paste0('Cytometry', c(2:5, 7:9, 12:17, 19, 21)),
  population_ids = c('Monocytes', 'CD4+CD8-', 'Mature SIg Kappa', 'TCRgd-'))
```

---

cytometry.diagnosis *cytometry.diagnosis*

Description

A list of abreviations corresponding to the diagnosis for each cytometry in optimalFlowData. Diagnosis abbreviations correspond to: Healthy Diagnosis, Mantle Cell Lymphoma, Follicular Lymphoma, LymPhoplasmacytic Lymphoma, Chronic Lymphocytic Leukemia, Diffuse Large B-Cell Lymphoma and Hairy Cell Leukemia.

Usage

```
data("cytometry_diagnosis")
```

Format

A list of 40 diagnosis.

Examples

```
data(cytometry.diagnosis)
print(cytometry.diagnosis)
```

Cytometry1 *Cytometry1*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry1")
```

Format

A data frame with 82810 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vecto.r

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` an vector of cell types (strings).

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry1)
head(Cytometry1)
```

Cytometry10 *Cytometry10*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry10")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vecctor.

`CD38:APC H7-A LOGICAL` an integer vecctor.

`CD3:APC-A LOGICAL` an integer vecctor.

`CD4+CD20:PB-A LOGICAL` an integer vecctor.

`CD45:PO-A LOGICAL` an integer vecctor.

`CD56+IgK:PE-A LOGICAL` an integer vecctor.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vecctor.

`CD8+IgL:FITC-A LOGICAL` an integer vecctor.

`FSC-A LINEAR` an integer vecctor.

`SSC-A Exp-SSC Low` an integer vecctor.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry10)
head(Cytometry10)
```

Cytometry11 *Cytometry11*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry11")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry11)
head(Cytometry11)
```

Cytometry12 *Cytometry12*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry12")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry12)
head(Cytometry12)
```

Cytometry13 *Cytometry13*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry13")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry13)
head(Cytometry13)
```

Cytometry14 *Cytometry14*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry14")
```

Format

A data frame with 154882 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry14)
head(Cytometry14)
```

Cytometry15 *Cytometry15*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry15")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry15)
head(Cytometry15)
```

Cytometry16 *Cytometry16*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry16")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry16)
head(Cytometry16)
```

Cytometry17 *Cytometry17*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry17")
```

Format

A data frame with 252425 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry17)
head(Cytometry17)
```

Cytometry18 *Cytometry18*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry18")
```

Format

A data frame with 200675 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry18)
head(Cytometry18)
```

Cytometry19 *Cytometry19*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry19")
```

Format

A data frame with 100600 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry19)
head(Cytometry19)
```

Cytometry2 *Cytometry2*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual bsed on data taken following Euroflow protocols.

Usage

```
data("Cytometry2")
```

Format

A data frame with 140753 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vactor.

`CD38:APC H7-A LOGICAL` an integer vactor.

`CD3:APC-A LOGICAL` an integer vactor.

`CD4+CD20:PB-A LOGICAL` an integer vactor.

`CD45:PO-A LOGICAL` an integer vactor.

`CD56+IgK:PE-A LOGICAL` an integer vactor.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vactor.

`CD8+IgL:FITC-A LOGICAL` an integer vactor.

`FSC-A LINEAR` an integer vactor.

`SSC-A Exp-SSC Low` an integer vactor.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry2)
head(Cytometry2)
```

Cytometry20 *Cytometry20*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry20")
```

Format

A data frame with 200925 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry20)
head(Cytometry20)
```

Cytometry21 *Cytometry21*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry21")
```

Format

A data frame with 254450 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry21)
head(Cytometry21)
```

Cytometry22 *Cytometry22*

Description

A simulated flow cytometry dataset, as a data frame, of an individual wit a Mantle Cell Lymphoma based on data taken following Euroflow protocols.

Usage

```
data("Cytometry22")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry22)
head(Cytometry22)
```

Cytometry23 *Cytometry23*

Description

A flow cytometry dataset, as a data frame, of an individual wit a Mantle Cell Lymphoma taken following Euroflow protocols.

Usage

```
data("Cytometry23")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry23)
head(Cytometry23)
```

Cytometry24 *Cytometry24*

Description

A simulated flow cytometry dataset, as a data frame, of an individual wit a Follicular Lymphoma based on data taken following Euroflow protocols.

Usage

```
data("Cytometry24")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry24)
head(Cytometry24)
```

Cytometry25 *Cytometry25*

Description

A simulated flow cytometry dataset, as a data frame, of an individual wit a Mantle Cell Lymphoma based on data taken following Euroflow protocols.

Usage

```
data("Cytometry25")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry25)
head(Cytometry25)
```

Cytometry26 *Cytometry26*

Description

A simulated flow cytometry dataset, as a data frame, of an individual wit a LymPhoplasmacytic Lymphoma based on data taken following Euroflow protocols.

Usage

```
data("Cytometry26")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry26)
head(Cytometry26)
```

Cytometry27 *Cytometry27*

Description

A simulated flow cytometry dataset, as a data frame, of an individual wit a Chronic Lymphocytic Leukemia based on data taken following Euroflow protocols.

Usage

```
data("Cytometry27")
```

Format

A data frame with 300000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry27)
head(Cytometry27)
```

Cytometry28 *Cytometry28*

Description

A simulated flow cytometry dataset, as a data frame, of an individual wit a Chronic Lymphocytic Leukemia based on data taken following Euroflow protocols.

Usage

```
data("Cytometry28")
```

Format

A data frame with 300000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry28)
head(Cytometry28)
```

Cytometry29 *Cytometry29*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual bsed on data taken following Euroflow protocols.

Usage

```
data("Cytometry29")
```

Format

A data frame with 300000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry29)
head(Cytometry29)
```

Cytometry3 *Cytometry3*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry3")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry3)
head(Cytometry3)
```

Cytometry30 *Cytometry30*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry30")
```

Format

A data frame with 236886 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry30)
head(Cytometry30)
```

Cytometry31 *Cytometry31*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry31")
```

Format

A data frame with 229216 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry31)
head(Cytometry31)
```

Cytometry32 *Cytometry32*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry32")
```

Format

A data frame with 260598 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry32)
head(Cytometry32)
```

Cytometry33 *Cytometry33*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry33")
```

Format

A data frame with 135798 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry33)
head(Cytometry33)
```

Cytometry34 *Cytometry34*

Description

A simulated flow cytometry dataset, as a data frame, of an individual with Diffuse Large B-Cell Lymphoma based on data taken following Euroflow protocols.

Usage

```
data("Cytometry34")
```

Format

A data frame with 300000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry34)
head(Cytometry34)
```

Cytometry35 *Cytometry35*

Description

A simulated flow cytometry dataset, as a data frame, of an individual with a Hairy Cell Leukemia based on data taken following Euroflow protocols.

Usage

```
data("Cytometry35")
```

Format

A data frame with 213720 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry35)
head(Cytometry35)
```

Cytometry36 *Cytometry36*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry36")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry36)
head(Cytometry36)
```

Cytometry37 *Cytometry37*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry37")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry37)
head(Cytometry37)
```

Cytometry38 *Cytometry38*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry38")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry38)
head(Cytometry38)
```

Cytometry39 *Cytometry39*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry39")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry39)
head(Cytometry39)
```

Cytometry4 *Cytometry4*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry4")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry4)
head(Cytometry4)
```

Cytometry40 *Cytometry40*

Description

A simulated flow cytometry dataset, as a data frame, of a healthy individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry40")
```

Format

A data frame with 145075 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry40)
head(Cytometry40)
```

Cytometry5 *Cytometry5*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry5")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry5)
head(Cytometry5)
```

Cytometry6 *Cytometry6*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry6")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry6)
head(Cytometry6)
```

Cytometry7 *Cytometry7*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry7")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry7)
head(Cytometry7)
```

Cytometry8 *Cytometry8*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry8")
```

Format

A data frame with 50000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry8)
head(Cytometry8)
```

Cytometry9 *Cytometry9*

Description

A simulated flow cytometry dataset, as a data frame, of a healty individual based on data taken following Euroflow protocols.

Usage

```
data("Cytometry9")
```

Format

A data frame with 100000 observations on the following 11 variables.

`CD19/TCRgd:PE Cy7-A LOGICAL` an integer vector.

`CD38:APC H7-A LOGICAL` an integer vector.

`CD3:APC-A LOGICAL` an integer vector.

`CD4+CD20:PB-A LOGICAL` an integer vector.

`CD45:PO-A LOGICAL` an integer vector.

`CD56+IgK:PE-A LOGICAL` an integer vector.

`CD5:PerCP Cy5-5-A LOGICAL` an integer vector.

`CD8+IgL:FITC-A LOGICAL` an integer vector.

`FSC-A LINEAR` an integer vector.

`SSC-A Exp-SSC Low` an integer vector.

`Population ID (name)` a vector of cell types (strings)

Source

E del Barrio, H Inouzhe, JM Loubes, C Matran and A Mayo-Iscar. (2019) optimalFlow: Optimal-transport approach to flow cytometry gating and population matching. arXiv:1907.08006

Examples

```
data(Cytometry9)
head(Cytometry9)
```

noise.types *noise.types*

Description

A list of cells that can be considered as noise (Debris and Doublets).

Usage

```
data("noise_types")
```

Format

A list 38 cell types that can be viewd as noise.

Examples

```
data(noise.types)
print(noise.types)
```

Index