healthyFlowData: A healthy dataset with 20 flow cytometry samples used by the flowMatch package

Ariful Azad

November 9, 2026

aazad@purdue.edu

Contents

1 Data Introduction **1**

2 Loading the data **1**

1 Data Introduction

This package provides a lightweight dataset for those wishing to try out the examples within the flowFlt package.

Peripheral blood mononuclear cells (PBMC) were collected from four healthy individuals. Each sample was divided five repplicates and each replicate was stained using labeled antibodies against CD3, CD4, CD8, and CD19 protein markers. Therefore we have total 20 samples from four healthy subjects. Each sample was compensated and transformed in order to stabilize per-channel variance. Each sample is then gated on the forward and side scatter to identify lymphocites. Hence the samples contain only lymphocites cells.

This is a part of a larger dataset consisting of 65 samples. Please ask the author if you would like to obtain the complete dataset.

2 Loading the data

The healthy donor (HD) dataset can be loaded using the `data` function.

```
> library(healthyFlowData)
> data(hd)
> hd.flowSet
```

```
A flowSet with 20 experiments.

An object of class 'AnnotatedDataFrame'
  rowNames: A_1 A_2 ... D_5 (20 total)
  varLabels: subject replicate Name
  varMetadata: labelDescription

column names(4): CD4 CD8 CD3 CD19

>
```