Package ‘HIVcDNAvantWout03’

March 23, 2017

Version 1.14.0
Date 2005-01-31
Author Dr. Angelique van't Wout, Department of Microbiology, University of Washington
Title T cell line infections with HIV-1 LAI (BRU)
Description The expression levels of approximately 4600 cellular RNA transcripts were assessed in CD4+ T cell lines at different times after infection with HIV-1BRU using DNA microarrays. This data corresponds to the first block of a 12 block array image (001030_08_1.GEL) in the first data set (2000095918 A) in the first experiment (CEM LAI vs HI-LAI 24hr). There are two data sets, which are part of a dye-swap experiment with replicates, representing the Cy3 (green) absorption intensities for channel 1 (hiv1raw) and the Cy5 (red) absorption intensities for channel 2 (hiv2raw).

biocViews ExperimentData, MicroarrayData, TwoChannelData, HIVData
License GPL (>= 2)
Maintainer Chris Fraley <fraley@stat.washington.edu>
NeedsCompilation no

R topics documented:

hiv1raw ................................................................. 1
hiv2raw ................................................................. 2

Index

hiv1raw

T cell line infections with HIV-1 LAI (BRU)

Description

The expression levels of approximately 4600 cellular RNA transcripts were assessed in CD4+ T cell lines at different times after infection with HIV-1BRU using DNA microarrays. There are two data sets, which are part of a dye-swap experiment with replicates, representing the Cy3 (green) absorption intensities for channel 1 (hiv1raw) and the Cy5 (red) absorption intensities for channel 2 (hiv2raw).
Usage
data(hiv1raw)

Format
This data represents a block within a microarray image with 12x32 spots. It is stored as a vector of length 450,000 representing a 450x1000 matrix (ordered by column) of intensities encoded for compact (16-bit TIFF) storage.

Details
The intensities can be obtained from this data by first subtracting them from 65535, then squaring, then multiplying by a scale factor $4.71542407 \times 10^{-5}$. In other words, a number $x$ in the hiv1 data set corresponds to intensity $(256 \times 256 - 1 - x)^2 \times .0000471542407$.

Source
Dr. Angelique van’t Wout, Department of Microbiology, University of Washington
The data corresponds to the first block of a 12 block array image (‘001030_08_1.GEL’) in the first data set (‘2000095918 A’) in the first experiment (‘CEM LAI vs HI-LAI 24hr’) of the following data archive: http://expression.microslu.washington.edu/expression/vantwoutjvi2002.html

References
van’t Wout AB, Lehrman GK, Mikheeva SA, O’Keeffe GC, Katze MG, Bumgarner RE, Geiss GK and Mullins JI, Cellular gene expression upon human immunodeficiency virus type 1 infection of CD4(+) T-cell lines, J Virol. 2003 Jan;77(2):1392-402.a

hiv2raw

T cell line infections with HIV-1 LAI (BRU)

Description
The expression levels of approximately 4600 cellular RNA transcripts were assessed in CD4+ T cell lines at different times after infection with HIV-1BRU using DNA microarrays. There are two data sets, which are part of a dye-swap experiment with replicates, representing the Cy3 (green) absorption intensities for channel 1 (hiv1raw) and the Cy5 (red) absorption intensities for channel 2 (hiv2raw).

Usage
data(hiv2raw)

Format
This data represents a block within a microarray image with 12x32 spots. It is stored as a vector of length 450,000 representing a 450x1000 matrix (ordered by column) of intensities encoded for compact (16-bit TIFF) storage.
Details
The intensities can be obtained from this data by first subtracting them from 65535, then squaring, then multiplying by a scale factor 4.71542407E-05. In other words, a number x in the hiv1 data set corresponds to intensity \((256 \times 256 - 1 - x)^2 \times .0000471542407\).

Source
Dr. Angelique van’t Wout, Department of Microbiology, University of Washington
The data corresponds to the first block of a 12 block array image (‘001030_08_1.GEL’) in the first data set (‘2000095918 A’) in the first experiment (‘CEM LAI vs HI-LAI 24hr’) of the following data archive:\http://expression.microslu.washington.edu/expression/vantwoutjvi2002.html

References
Index

*Topic datasets
  hiv1raw, 1
  hiv2raw, 2

hiv1raw, 1
hiv2raw, 2