

Package ‘HIVcDNAvantWout03’

April 11, 2023

Version 1.38.0

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>

URL <http://expression.microslu.washington.edu/expression/vantwoutjvi2002.html>

git_url <https://git.bioconductor.org/packages/HIVcDNAvantWout03>

git_branch RELEASE_3_16

git_last_commit 8e9d982

git_last_commit_date 2022-11-01

Date/Publication 2023-04-11

R topics documented:

hiv1raw	2
hiv2raw	3
Index	4

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 4.71542407E-05. In other words, a number x in the hiv1 data set corresponds to intensity $(256 * 256 - 1 - x)^2 * .0000471542407$.

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 $(256 * 256 - 1 - x)^2 * .0000471542407$.

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:\a href="http://expression.microslu.washington.edu/expression/vantwoutjvi2002.html">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.

Index

* **datasets**

hiv1raw, [2](#)

hiv2raw, [3](#)

hiv1raw, [2](#)

hiv2raw, [3](#)