Package 'HIVcDNAvantWout03'

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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

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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

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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

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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

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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.

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