

# Package ‘ALL’

November 13, 2025

**Title** A data package  
**Version** 1.52.0  
**Date** 2009-07-22  
**Author** Xiaochun Li  
**Description** Data of T- and B-cell Acute Lymphocytic Leukemia from the Ritz Laboratory at the DFCI (includes Apr 2004 versions)  
**Maintainer** Robert Gentleman <rgentlem@gmail.com>  
**License** Artistic-2.0  
**Depends** R (>= 2.10), Biobase (>= 2.5.5)  
**Suggests** rpart  
**biocViews** ExperimentData, CancerData, LeukemiaCancerData  
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**git\_branch** RELEASE\_3\_22  
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| ALL | <i>Acute Lymphoblastic Leukemia Data from the Ritz Laboratory</i> |
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## Description

The data consist of microarrays from 128 different individuals with acute lymphoblastic leukemia (ALL). A number of additional covariates are available. The data have been normalized (using rma) and it is the jointly normalized data that are available here. The data are presented in the form of an exprSet object.

**Usage**

data(ALL)

**Format**

The different covariates are:

- `cod`: The patient IDs.
- `diagnosis`: The date of diagnosis.
- `sex`: The sex of the patient, coded as M and F.
- `age`: The age of the patient in years.
- `BT`: The type and stage of the disease; B indicates B-cell ALL while a T indicates T-cell ALL.
- `remission`: A factor with two levels, either CR indicate that remission was achieved or REF indicating that the patient was refractory and remission was not achieved.
- `CR`: A vector with the following values: 1: "CR", remission achieved; 2: "DEATH IN CR", patient died while in remission; 3: "DEATH IN INDUCTION", patient died while in induction therapy; 4: "REF", patient was refractory to therapy.
- `date.cr`: The date on which remission was achieved.
- `t(4;11)`: A logical vector indicating whether a t(4;11) translocation was detected.
- `t(9;22)`: A logical vector indicating whether a t(9;22) translocation was detected.
- `cyto.normal`: A logical vector indicating whether the cytogenetics were normal.
- `citog`: A vector indicating the various cytogenetic abnormalities that were detected.
- `mol.bio1`: The assigned molecular biology of the cancer (mainly for those with B-cell ALL), BCRVABL, ALLVAF4, E2APBX etc.
- `fusion protein`: For those with BCRVABL which of the fusion proteins was detected, p190, p190\p210, p210.
- `mdr`: The patients response to multidrug resistance, either NEG, or POS.
- `kinet`: ploidy, either diploid or hyperd.
- `ccr`: A vector indicating whether the patient had continuous complete remission nor not.
- `relapse`: A vector indicating whether the patient had relapse or not.
- `transplant`: Did the patient receive a bone marrow transplant or not.
- `f.u`: Follow-up data. The possible values are 1: "AUBMT V REL": autologous bone marrow transplant and subsequent relapse; 2: "BMT V CCR": allogeneic bone marrow transplant and still in continuous complete remission; 3: "BMT V DEATH IN CR": after allogeneic bone marrow transplant patient died without relapsing; 4: "BMT V REL": after allogeneic bone marrow transplant patient relapsed; 5: "CCR": patient was in continuous complete remission; 6: "CCR V OFF": patient was in continuous complete remission but off-protocol for some reasons; 7: "DEATH IN CR": died when in complete remission; 8: "MUD V DEATH IN CR": unrelated allogeneic bone marrow transplant and death without relapsing; 9: "REL": relapse; 10: "REL V SNC": relapse occurred at central nervous system.
- `date last seen`: Date the patient was last seen.

**Source**

Sabina Chiaretti, Xiaochun Li, Robert Gentleman, Antonella Vitale, Marco Vignetti, Franco Mandelli, Jerome Ritz, and Robin Foa Gene expression profile of adult T-cell acute lymphocytic leukemia identifies distinct subsets of patients with different response to therapy and survival. *Blood*, 1 April 2004, Vol. 103, No. 7.

**Examples**

```
data(ALL)
```

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```
tojulian
```

*Convert Calendar Date to Julian Time*

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**Description**

Convert Calendar Date in the form of "%m/%d/%Y" to Julian time, number of days since 1970-01-01 in the time zone of "GMT".

**Usage**

```
tojulian(x)
```

**Arguments**

x                      Date to convert

**Author(s)**

Robert Gentleman

**Examples**

```
ds <- tojulian(c("4/8/2000", "4/30/2000"))
ds[2]-ds[1]
```

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