

# Package ‘LungCancerLines’

July 9, 2024

**Type** Package

**Title** Reads from Two Lung Cancer Cell Lines

**Version** 0.42.0

**Author** Cory Barr, Michael Lawrence

**Maintainer** Michael Lawrence <michafla@gene.com>

**Imports** Rsamtools

**Description** Reads from an RNA-seq experiment between two lung cancer cell lines: H1993 (met) and H2073 (primary).  
The reads are stored as Fastq files and are meant for use with the TP53Genome object in the gmapR package.

**License** Artistic-2.0

**biocViews** ExperimentData, Genome, CancerData, LungCancerData, RNASeqData

**git\_url** <https://git.bioconductor.org/packages/LungCancerLines>

**git\_branch** RELEASE\_3\_19

**git\_last\_commit** 5bfa360

**git\_last\_commit\_date** 2024-04-30

**Repository** Bioconductor 3.19

**Date/Publication** 2024-07-09

## Contents

|                                |   |
|--------------------------------|---|
| TP53Genome-package . . . . .   | 2 |
| LungCancerBamFiles . . . . .   | 2 |
| LungCancerFastqFiles . . . . . | 3 |

|              |          |
|--------------|----------|
| <b>Index</b> | <b>4</b> |
|--------------|----------|

TP53Genome-package      *Genomic Sequence of the TP53 Gene Plus a 1-Megabase Region on Each Side of the Gene*

---

### **Description**

This package was created to use in examples and test sets for the gmapR and VariationTools packages.

### **Details**

Package: TP53Genome  
Type: Package  
Version: 1.0  
Date: 2012-09-05  
License: Artistic-2.0

By calling `data(p53Genome)`, users will have access to a `GmapGenome` object for the TP53 genome.

### **Author(s)**

Cory Barr

Maintainer: Cory Barr <barr.cory@gene.com>

### **Examples**

```
data(p53Genome)
```

---

LungCancerBamFiles      *Get the BAM paths*

---

### **Description**

Gets a `BamFileList` pointing to BAM files containing read alignments for the H1993 and H2073 RNA-seq samples. The files are the “analyzed” BAM files as output by the HTSeqGenie package.

### **Usage**

```
LungCancerBamFiles()
```

**Details**

The reads were aligned to genome [TP53Genome](#), using the following parameters:

- splicing: knownGene
- novelsplicing: 1
- indel\_penalty: 1
- distant\_splice\_penalty: 1
- suboptimal\_levels: 2
- npaths: 10

Note that the BAM files contain only unique alignments.

**Value**

A BamFileList pointing to two BAM files, one for H1993, one for H2073.

**Author(s)**

Michael Lawrence

**Examples**

```
LungCancerBamFiles()
```

---

LungCancerFastqFiles *Get the Fastq paths*

---

**Description**

Returns a character vector of file paths to the demo Fastq files.

**Usage**

```
LungCancerFastqFiles()
```

**Value**

A character vector, named according to “H[1993/2073].[first/last]”.

**Author(s)**

Michael Lawrence

**Examples**

```
LungCancerFastqFiles()
```

# Index

LungCancerBamFiles, [2](#)

LungCancerFastqFiles, [3](#)

TP53Genome, [3](#)

TP53Genome (TP53Genome-package), [2](#)

TP53Genome-package, [2](#)