

# Package ‘SingleMoleculeFootprintingData’

November 13, 2025

**Type** Package

**Title** Data supporting the SingleMoleculeFootprinting pkg

**Version** 1.19.0

**Description** This Data package contains data objects relevant for the SingleMoleculeFootprinting package. More specifically, it contains one example of aligned sequencing data (.bam & .bai) necessary to run the SingleMoleculeFootprinting vignette. Additionally, we provide data that are essential for some functions to work correctly such as BaitCapture() and SampleCorrelation().

**biocViews** ExperimentHub, ExperimentData, SequencingData

**License** GPL-3

**Encoding** UTF-8

**LazyData** true

**Imports** ExperimentHub, utils

**Suggests** knitr, rmarkdown

**VignetteBuilder** knitr

**RoxygenNote** 7.1.1

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

**git\_branch** devel

**git\_last\_commit** 49980e9

**git\_last\_commit\_date** 2025-10-29

**Repository** Bioconductor 3.23

**Date/Publication** 2025-11-13

**Author** Guido Barzaghi [aut, cre] (ORCID: <https://orcid.org/0000-0001-6066-3920>),  
Arnaud Krebs [aut] (ORCID: <https://orcid.org/0000-0001-7999-6127>),  
Mike Smith [ctb] (ORCID: <https://orcid.org/0000-0002-7800-3848>)

**Maintainer** Guido Barzaghi <[guido.barzaghi@embl.de](mailto:guido.barzaghi@embl.de)>

## Contents

|                        |   |
|------------------------|---|
| NRF1pair.bam . . . . . | 2 |
|------------------------|---|

|              |          |
|--------------|----------|
| <b>Index</b> | <b>3</b> |
|--------------|----------|

---

|              |                                       |
|--------------|---------------------------------------|
| NRF1pair.bam | <i>SingleMoleculeFootprintingData</i> |
|--------------|---------------------------------------|

---

## Description

This Data package contains r objects necessary to run some of the functions from the SingleMoleculeFootprinting package. SingleMoleculeFootprinting is an R package providing functions to analyze Single Molecule Footprinting (SMF) data.

## Usage

```
NRF1pair.bam(metadata = FALSE)
NRF1pair.bam.bai(metadata = FALSE)
EnrichmentRegions_mm10.rds(metadata = FALSE)
ReferenceMethylation.rds(metadata = FALSE)
AllCs.rds(metadata = FALSE)
```

## Arguments

metadata            FALSE (default) returns data. TRUE returns metadata

## Value

Returns respectively: NRF1pair.bam - Bam file containing reads covering example NRF1 pair binding locus used for SingleMoleculeFootprinting vignette. NRF1pair.bam.bai - Bam index file to Bam file used as example data in SingleMoleculeFootprinting vignette EnrichmentRegions\_mm10.rds - GRanges obj of mouse genomic regions enriched for SMF signal in genome-wide capture experiments. Can be used to compute bait capture efficiency ReferenceMethylation.rds - Reference matrix of genome-wide bulk SMF values for published experiments in mouse cell lines AllCs.rds - GRanges obj referencing the genomic context cytosines for mm10

## Examples

```
NRF1pair.bam(metadata = TRUE)
NRF1pair.bam.bai(metadata = TRUE)
EnrichmentRegions_mm10.rds(metadata = TRUE)
ReferenceMethylation.rds(metadata = TRUE)
AllCs.rds(metadata = TRUE)
```

# Index

AllCs.rds (NRF1pair.bam), [2](#)

EnrichmentRegions\_mm10.rds  
(NRF1pair.bam), [2](#)

NRF1pair.bam, [2](#)

ReferenceMethylation.rds  
(NRF1pair.bam), [2](#)