

# Package ‘norSTR’

July 22, 2025

**Title** Allele Frequencies for 50 Forensic STR Markers

**Version** 0.2.1

**Description** Allele frequency databases for 50 forensic short tandem repeat (STR) markers, covering Norway and several broader regional populations: Europe, Africa, South America, West Asia, Middle Asia, and East Asia. Developed and maintained for use at the Department of Forensic Sciences, Oslo, Norway.

**License** MIT + file LICENSE

**URL** <https://github.com/magnusdv/norSTR>

**BugReports** <https://github.com/magnusdv/norSTR/issues>

**Depends** R (>= 3.5)

**Encoding** UTF-8

**Language** en-GB

**LazyData** true

**RoxygenNote** 7.3.2

**NeedsCompilation** no

**Author** Magnus Dehli Vigeland [aut, cre] (ORCID:  
<<https://orcid.org/0000-0002-9134-4962>>)

**Maintainer** Magnus Dehli Vigeland <m.d.vigeland@medisin.uio.no>

**Repository** CRAN

**Date/Publication** 2025-05-05 10:10:06 UTC

## Contents

|                      |   |
|----------------------|---|
| africaDB . . . . .   | 2 |
| eastAsiaDB . . . . . | 2 |
| europaDB . . . . .   | 3 |
| map50 . . . . .      | 3 |
| markerSets . . . . . | 4 |
| midAsiaDB . . . . .  | 4 |

|                          |          |
|--------------------------|----------|
| norwayDB . . . . .       | 5        |
| southAmericaDB . . . . . | 6        |
| westAsiaDB . . . . .     | 6        |
| <b>Index</b>             | <b>8</b> |

---

|          |                                              |
|----------|----------------------------------------------|
| africaDB | <i>African STR allele frequency database</i> |
|----------|----------------------------------------------|

---

**Description**

Allele frequencies for 50 forensic short tandem repeat (STR) markers covering the African population.

**Usage**

africaDB

**Format**

A list of 50 frequency vectors. Each vector is a numeric with sum 1, and uses the allele labels as names.

**Source**

Department of Forensic Sciences, Oslo University Hospital.

**Examples**

africaDB[1:2]

---

|            |                                                 |
|------------|-------------------------------------------------|
| eastAsiaDB | <i>East Asian STR allele frequency database</i> |
|------------|-------------------------------------------------|

---

**Description**

Allele frequencies for 50 forensic short tandem repeat (STR) markers covering the East Asian population.

**Usage**

eastAsiaDB

**Format**

A list of 50 frequency vectors. Each vector is a numeric with sum 1, and uses the allele labels as names.

**Source**

Department of Forensic Sciences, Oslo University Hospital.

**Examples**

```
eastAsiaDB[1:2]
```

---

europeDB

*European STR allele frequency database*

---

**Description**

Allele frequencies for 50 forensic short tandem repeat (STR) markers covering the European population.

**Usage**

```
europeDB
```

**Format**

A list of 50 frequency vectors. Each vector is a numeric with sum 1, and uses the allele labels as names.

**Source**

Department of Forensic Sciences, Oslo University Hospital.

**Examples**

```
europeDB[1:2]
```

---

map50

*Built-in linkage map*

---

**Description**

A map providing the genetic positions (in centiMorgans) of each STR marker featured in this package.

**Usage**

```
map50
```

**Format**

A data frame with 50 rows and 4 columns: Marker, Chr, cM, Kit.

---

|            |                               |
|------------|-------------------------------|
| markerSets | <i>Common STR marker sets</i> |
|------------|-------------------------------|

---

### Description

Lists of autosomal STR markers included in widely-used commercial forensic kits. Sex-determining (e.g. Amelogenin) and non-autosomal markers (e.g. Y markers) are explicitly omitted.

### Usage

markerSets

### Format

A named list of 6 character vectors of marker names.

### Details

Kits included:

- codis: Expanded CODIS core loci (FBI/NIST), 21 autosomal STR markers.
- fusion6c: PowerPlex® Fusion 6C (Promega), 23 autosomal markers.
- globalfiler: GlobalFiler™ PCR Amplification Kit (Applied Biosystems), 21 autosomal markers.
- hdpflex: HDplex STR Kit (Qiagen), 9 autosomal markers.
- sureid: SureID® 23comp Human STR Identification Kit (Health Gene Technologies), 23 autosomal markers.
- sureid27: Combined SureID® 23comp and SureID® PathFinder Plus; 26 autosomal markers.

### Examples

markerSets\$fusion6c

---

|           |                                                |
|-----------|------------------------------------------------|
| midAsiaDB | <i>Mid Asian STR allele frequency database</i> |
|-----------|------------------------------------------------|

---

### Description

Allele frequencies for 50 forensic short tandem repeat (STR) markers covering the Mid Asian population.

### Usage

midAsiaDB

**Format**

A list of 50 frequency vectors. Each vector is a numeric with sum 1, and uses the allele labels as names.

**Source**

Department of Forensic Sciences, Oslo University Hospital.

**Examples**

```
midAsiaDB[1:2]
```

---

norwayDB

*Norwegian STR allele frequency database*

---

**Description**

Allele frequencies for 50 forensic short tandem repeat (STR) markers covering the Norwegian population.

**Usage**

```
norwayDB
```

**Format**

A list of 50 frequency vectors. Each vector is a numeric with sum 1, and uses the allele labels as names.

**Source**

Department of Forensic Sciences, Oslo University Hospital.

**Examples**

```
norwayDB[1:2]
```

---

|                |                                                     |
|----------------|-----------------------------------------------------|
| southAmericaDB | <i>South American STR allele frequency database</i> |
|----------------|-----------------------------------------------------|

---

**Description**

Allele frequencies for 50 forensic short tandem repeat (STR) markers covering the South American population.

**Usage**

southAmericaDB

**Format**

A list of 50 frequency vectors. Each vector is a numeric with sum 1, and uses the allele labels as names.

**Source**

Department of Forensic Sciences, Oslo University Hospital.

**Examples**

southAmericaDB[1:2]

---

|            |                                                 |
|------------|-------------------------------------------------|
| westAsiaDB | <i>West Asian STR allele frequency database</i> |
|------------|-------------------------------------------------|

---

**Description**

Allele frequencies for 50 forensic short tandem repeat (STR) markers covering the West Asian population.

**Usage**

westAsiaDB

**Format**

A list of 50 frequency vectors. Each vector is a numeric with sum 1, and uses the allele labels as names.

**Source**

Department of Forensic Sciences, Oslo University Hospital.

*westAsiaDB*

7

### **Examples**

`westAsiaDB[1:2]`

# Index

## \* datasets

- africaDB, [2](#)
- eastAsiaDB, [2](#)
- europaDB, [3](#)
- map50, [3](#)
- markerSets, [4](#)
- midAsiaDB, [4](#)
- norwayDB, [5](#)
- southAmericaDB, [6](#)
- westAsiaDB, [6](#)

africaDB, [2](#)

eastAsiaDB, [2](#)

europaDB, [3](#)

map50, [3](#)

markerSets, [4](#)

midAsiaDB, [4](#)

norwayDB, [5](#)

southAmericaDB, [6](#)

westAsiaDB, [6](#)