

# Package ‘norSTR’

May 5, 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.

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**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

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**Repository** CRAN

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africaDB	<i>African STR allele frequency database</i>
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**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]

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eastAsiaDB	<i>East Asian STR allele frequency database</i>
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**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*

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**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.

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markerSets	<i>Common STR marker sets</i>
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### 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

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midAsiaDB	<i>Mid Asian STR allele frequency database</i>
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### 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]
```

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norwayDB

*Norwegian STR allele frequency database*

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**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]
```

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southAmericaDB	<i>South American STR allele frequency database</i>
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**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]

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westAsiaDB	<i>West Asian STR allele frequency database</i>
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**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*

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### **Examples**

`westAsiaDB[1:2]`

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