

# BSgenome.Ecoli.NCBI.20080805

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*Escherichia coli* full genomes

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## Description

Escherichia coli full genomes for several strains as provided by NCBI on 2008/08/05 and stored in Biostrings objects.

## Details

The genome of Escherichia coli is made of a single circular DNA sequence. The full genomes for the following strains are present in this package (one sequence per strain):

### Escherichia coli 536

Taxonomy ID: 362663  
Other names: "Escherichia coli strain 536", "Escherichia coli str. 536"  
Refseq: NC\_008253  
Length: 4,938,920 nt  
Seq.Status: Completed  
Sequencing center: University of Goettingen  
Completed: 2006/07/24  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_536/NC\_008253.fna

### Escherichia coli APEC O1

Taxonomy ID: 405955  
Other names: "Escherichia coli strain APEC O1", "Escherichia coli str. APEC O1"  
Refseq: NC\_008563  
Length: 5,082,025 nt  
Seq.Status: Completed  
Sequencing center: Iowa State University  
Completed: 2006/11/08  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_APEC\_O1/NC\_008563.fna

### Escherichia coli ATCC 8739

Taxonomy ID: 481805  
Other names: "Escherichia coli C (ATCC 8739)", "Escherichia coli C str. ATCC 8739", "Escherichia coli C"  
Refseq: NC\_010468  
Length: 4,746,218 nt  
Seq.Status: Completed  
Sequencing center: US DOE Joint Genome Institute (JGI-PGF)  
Completed: 2008/03/17  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_C\_ATCC\_8739/NC\_010468.fna

#### Escherichia coli CFT073

Taxonomy ID: 199310  
Other names: "Escherichia coli strain CFT073", "Escherichia coli str. CFT073"  
Refseq: NC\_004431  
Length: 5,231,428 nt  
Seq.Status: Completed  
Sequencing center: Univ. Wisconsin  
Completed: 2002/12/09  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_CFT073/NC\_004431.fna

#### Escherichia coli E24377A

Taxonomy ID: 331111  
Refseq: NC\_009801  
Length: 4,979,619 nt  
Seq.Status: Completed  
Sequencing center: TIGR  
Completed: 2007/09/13  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_E24377A/NC\_009801.fna

#### Escherichia coli HS

Taxonomy ID: 331112  
Refseq: NC\_009800  
Length: 4,643,538 nt  
Seq.Status: Completed  
Sequencing center: TIGR  
Completed: 2007/09/13  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_HS/NC\_009800.fna

#### Escherichia coli O157:H7 EDL933

Taxonomy ID: 155864  
Refseq: NC\_002655  
Length: 5,528,445 nt  
Seq.Status: Completed  
Sequencing center: Univ. Wisconsin  
Completed: 2001/09/27  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_O157H7\_EDL933/NC\_002655.fna

#### Escherichia coli O157:H7 str. Sakai

Taxonomy ID: 386585  
Other names: "Escherichia coli O157:H7 strain Sakai"

Refseq: NC\_002695  
Length: 5,498,450 nt  
Seq.Status: Completed  
Sequencing center: GIRC  
Completed: 2001/10/02  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_0157H7/NC\_002695.fna

*Escherichia coli* SMS-3-5

Taxonomy ID: 439855  
Other names: "Escherichia coli strain SMS-3-5", "Escherichia coli str. SMS-3-5"  
Refseq: NC\_010498  
Length: 5,068,389 nt  
Seq.Status: Completed  
Sequencing center: TIGR  
Completed: 2008/03/24  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_SMS\_3\_5/NC\_010498.fna

*Escherichia coli* UTI89

Taxonomy ID: 364106  
Other names: "Escherichia coli strain UTI89", "Escherichia coli str. UTI89"  
Refseq: NC\_007946  
Length: 5,065,741 nt  
Seq.Status: Completed  
Sequencing center: Washington University (WashU)  
Completed: 2006/04/07  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_UTI89/NC\_007946.fna

*Escherichia coli* str. K12 substr. DH10B

Taxonomy ID: 316385  
Other names: "Escherichia coli DH10B", "Escherichia coli strain K12 substrain DH10B"  
Refseq: NC\_010473  
Length: 4,686,137 nt  
Seq.Status: Completed  
Sequencing center: University of Wisconsin-Madison  
Completed: 2008/03/17  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_K\_12\_substr\_\_DH10B/NC\_010473.fna

*Escherichia coli* str. K12 substr. MG1655

Taxonomy ID: 511145  
Other names: "Escherichia coli MG1655", "Escherichia coli strain MG1655", "Escherichia coli str. MG1655"  
Refseq: NC\_000913  
Length: 4,639,675 nt  
Seq.Status: Completed  
Sequencing center: Univ. Wisconsin  
Completed: 2001/10/15  
File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_K12\_substr\_\_MG1655/NC\_000913.fna

*Escherichia coli* str. K12 substr. W3110

Taxonomy ID: 316407  
 Other names: "Escherichia coli W3110", "Escherichia coli strain W3110", "Escherichia coli str. W3110"  
 Refseq: AC\_000091  
 Length: 4,646,332 nt  
 Seq.Status: Completed  
 Sequencing center: Nara Institute of Science and Technology  
 Completed: 2006/03/01  
 File: ftp://ftp.ncbi.nih.gov/genomes/Bacteria/Escherichia\_coli\_W3110/AC\_000091.fna

### Note

This BSgenome data package was made from the following source data files:

```
Escherichia_coli_536/NC_008253.fna
Escherichia_coli_APEC_01/NC_008563.fna
Escherichia_coli_C_ATCC_8739/NC_010468.fna
Escherichia_coli_CFT073/NC_004431.fna
Escherichia_coli_E24377A/NC_009801.fna
Escherichia_coli_HS/NC_009800.fna
Escherichia_coli_0157H7_EDL933/NC_002655.fna
Escherichia_coli_0157H7/NC_002695.fna
Escherichia_coli_SMS_3_5/NC_010498.fna
Escherichia_coli_UTI89/NC_007946.fna
Escherichia_coli_K_12_substr__DH10B/NC_010473.fna
Escherichia_coli_K12_substr__MG1655/NC_000913.fna
Escherichia_coli_W3110/AC_000091.fna
from ftp://ftp.ncbi.nih.gov/genomes/Bacteria/ (downloaded on 2008/08/05)
```

See [?BSgenomeForge](#) and the BSgenomeForge vignette (vignette("BSgenomeForge")) in the **BSgenome** software package for how to make a BSgenome data package.

### Author(s)

The Bioconductor Dev Team

### See Also

- [BSgenome](#) objects and the [available.genomes](#) function in the **BSgenome** software package.
- [DNAString](#) objects in the **Biostrings** package.
- The BSgenomeForge vignette (vignette("BSgenomeForge")) in the **BSgenome** software package for how to make a BSgenome data package.

### Examples

```
BSgenome.Ecoli.NCBI.20080805
genome <- BSgenome.Ecoli.NCBI.20080805
seqlengths(genome)
## The names of the sequences are the Refseq numbers!
```

```
genome$NC_008253 # same as genome[["NC_008253"]]

## -----
## Genome-wide motif searching
## -----
## See the GenomeSearching vignette in the BSgenome software
## package for some examples of genome-wide motif searching using
## Biostrings and the BSgenome data packages:
if (interactive())
  vignette("GenomeSearching", package="BSgenome")
```

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