BSgenome.Osativa.MSU.MSU7

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Oryza sativa full genome (MSU7)

Description

Oryza sativa full genome as provided by MSU (MSU7 Genome Release) and stored in Biostrings objects.

Note

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

ftp://ftp.plantbiology.msu.edu/pub/data/Eukaryotic_Projects/o_sativa/annotation_dbs/pseudomolecules/version_7.0/all.dir/all.con

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

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See Also

BSgenome-class, DNAString-class, available.genomes, BSgenomeForge

Examples

BSgenome.Osativa.MSU.MSU7

genome <- BSgenome.Osativa.MSU.MSU7

seqlengths(genome)

genome$Chr1 # same as genome[["Chr1"]]

if ("AGAPS" %in% masknames(genome)) {

## Check that the assembly gaps contain only Ns:
checkOnlyNsInGaps <- function(seq) {

1
## Replace all masks by the inverted AGAPS mask
masks(seq) <- gaps(masks(seq)["AGAPS"])
unique_letters <- uniqueLetters(seq)
if (any(unique_letters != "N"))
  stop("assembly gaps contain more than just Ns")
}

## A message will be printed each time a sequence is removed
## from the cache:
options( verbose = TRUE)

for (seqname in seqnames(genome)) {
  cat("Checking sequence", seqname, "...")
  seq <- genome[[seqname]]
  checkOnlyNsInGaps(seq)
  cat("OK\n")
}

## 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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