Package ‘openPrimeRui’

May 30, 2024

Title  Shiny Application for Multiplex PCR Primer Design and Analysis

Version  1.26.0

Description  A Shiny application providing methods for designing, evaluating,
and comparing primer sets for multiplex polymerase chain reaction.
Primers are designed by solving a set cover problem such that
the number of covered template sequences is maximized with
the smallest possible set of primers.
To guarantee that high-quality primers are generated,
only primers fulfilling constraints on their physicochemical properties
are selected.

Depends  R (>= 4.0.0), openPrimeR (>= 0.99.0)

License  GPL-2

Encoding  UTF-8

RoxygenNote  6.0.1

Imports  shiny (>= 1.0.2), shinyjs (>= 0.9), shinyBS (>= 0.61), DT (>= 0.2), rmarkdown (>= 1.0)

Suggests  knitr (>= 1.13)

biocViews  Software, Technology

VignetteBuilder  knitr

PackageStatus  Deprecated

git_url  https://git.bioconductor.org/packages/openPrimeRui

git_branch  RELEASE_3_19

git_last_commit  480822b

git_last_commit_date  2024-04-30

Repository  Bioconductor 3.19

Date/Publication  2024-05-29

Author  Matthias Döring [aut, cre],
        Nico Pfeifer [aut]

Maintainer  Matthias Döring <matthias-doering@gmx.de>
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Description

Using the openPrimeR Shiny application, you can evaluate existing primers or design novel primers
for multiplex polymerase chain reaction that are optimized with respect to the coverage of template
sequences and the physicochemical properties of the primers.

Details

The Shiny application can be started using `startApp`, which should open the frontend in your
default web browser.

Author(s)

Maintainer: Matthias Döring <mdoering@mpi-inf.mpg.de>

Authors:

• Nico Pfeifer <pfeifer@informatik.uni-tuebingen.de>

myCatch                Custom Catch Function

Description

Returns a data frame if the input expression causes an error, otherwise returns the value of the
evaluated expression.

Usage

    myCatch(expr)

Arguments

    expr    Expression to evaluate.

Value

    The evaluated expression.
**startApp**

*The openPrimeR Shiny Application.*

**Description**

Starts the openPrimeR Shiny application. A new tab should open in your default browser. If no browser is opened, please consider the console output to identify the local port on which the server is running and manually open the shown URL.

**Usage**

```r
startApp()
```

**Value**

Opens the Shiny app in a web browser.

**Note**

The Shiny app can be started only if you fulfill all of the suggested package dependencies for the Shiny framework, so please ensure that you've installed openPrimeR including all suggested dependencies.

**Examples**

```r
# Start the shiny app
## Not run:
startApp()

## End(Not run)
# Only run this example in interactive R sessions:
if (interactive()) {
  startApp()
}
```

---

**withWarnings**

*Error/Warning Handler.*

**Description**

Evaluates an expression without throwing warning/errors.

**Usage**

```r
withWarnings(expr)
```
Arguments

expr  Expression to evaluate

Details

Instead of throwing warnings/errors, the warnings/errors are returned in a list object, alongside with the results.

Value

List containing values, warnings, and errors.
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