Package 'boggy'

July 22, 2025

Title Real-Time PCR Data Sets by Boggy et al. (2010)

Version 0.0.1

Description Real-time quantitative polymerase chain reaction (qPCR) data sets by Boggy et al. (2008) <doi:10.1371/journal.pone.0012355>. This package provides a dilution series for one PCR target: a random sequence that minimizes secondary structure and off-target primer binding. The data set is a six-point, ten-fold dilution series.
For each concentration there are two replicates. Each amplification curve is 40 cycles long. Original raw data file:
<https://journals.plos.org/plosone/article/file?type=supplementary&id=10.1371/journal.pone.0012355.s004>.

License CC BY 4.0

Encoding UTF-8

RoxygenNote 7.3.1

Imports tibble

Depends R (>= 2.10)

LazyData true

URL https://rmagno.eu/boggy/, https://github.com/ramiromagno/boggy

BugReports https://github.com/ramiromagno/boggy/issues

NeedsCompilation no

Author Ramiro Magno [aut, cre] (ORCID:
<https://orcid.org/0000-0001-5226-3441>),
Pattern Institute [cph, fnd]

Maintainer Ramiro Magno <rmagno@pattern.institute>

Repository CRAN

Date/Publication 2024-04-25 16:10:02 UTC

Contents

s1 *qPCR data set by Boggy et al. (2010)*

Description

The qPCR data set named *s1* comprises a six-point, ten-fold dilution series, replicated in duplicates targeting an amplicon designed with a random sequence that minimizes secondary structure and off-target primer binding. Please read the *Quantitative PCR data* section, *qPCR assays* subsection of Boggy et al. (2010) for more details.

Format

A tibble with 480 rows and 10 variables:

`plate` Plate identifier. For this data set it is always missing (`NA`).

`well` Well identifier.

`dye` The type of dye used. In this data set the values are always `"SYTO 13"`, meaning 2 mM of the dsDNA dye SYTO-13 (Invitrogen, Carlsbad, CA).

`target` Target identifier: the amplicon used, a random sequence dubbed `"S1"` by the original authors.

`sample_type` Sample type (all curves are standards, i.e. `"std"`).

`replicate` Replicate identifier: either 1 or 2.

`copies` Standard copy number.

`dilution` Dilution factor. Higher number means greater dilution.

`cycle` PCR cycle.

`fluor` Raw fluorescence values.

Source

doi:10.1371/journal.pone.0012355

Examples

```
s1
```

Index