

Package ‘rutledge’

February 27, 2023

Type Package

Title Real-Time PCR Data Sets by Rutledge et al. (2004)

Version 0.1.0

Description Real-time quantitative polymerase chain reaction (qPCR) data by Rutledge et al. (2004) <[doi:10.1093/nar/gnh177](https://doi.org/10.1093/nar/gnh177)> in tidy format. The data comprises a six-point, ten-fold dilution series, repeated in five independent runs, for two different amplicons. In each run, each standard concentration is replicated four times. Original raw data file:

<[https:](https://oup.silverchair-cdn.com/oup/backfile/Content_public/Journal/nar/32/22/10.1093_nar_gnh177/1/gnh177_Supplementary_Data.zip?Expires=1680370010&Signature=xxk4VxX0C4yr3UWzxgh7ieCt7QQmpFMRauvsVEwtGXGcY7uhNCE-M8zx9kpyDPoS8NR7fjBuMx2Xz2ANFwF1VqnjQ4Afo3-&Key-Pair-Id=APKAIE5G5CRDK6RD3PGA)

[oup.silverchair-cdn.com/oup/backfile/Content_public/Journal/nar/32/22/10.](https://oup.silverchair-cdn.com/oup/backfile/Content_public/Journal/nar/32/22/10.1093_nar_gnh177/1/gnh177_Supplementary_Data.zip?Expires=1680370010&Signature=xxk4VxX0C4yr3UWzxgh7ieCt7QQmpFMRauvsVEwtGXGcY7uhNCE-M8zx9kpyDPoS8NR7fjBuMx2Xz2ANFwF1VqnjQ4Afo3-&Key-Pair-Id=APKAIE5G5CRDK6RD3PGA)

[1093_nar_gnh177/1/gnh177_Supplementary_Data.zip?Expires=1680370010&Signature=](https://oup.silverchair-cdn.com/oup/backfile/Content_public/Journal/nar/32/22/10.1093_nar_gnh177/1/gnh177_Supplementary_Data.zip?Expires=1680370010&Signature=xxk4VxX0C4yr3UWzxgh7ieCt7QQmpFMRauvsVEwtGXGcY7uhNCE-M8zx9kpyDPoS8NR7fjBuMx2Xz2ANFwF1VqnjQ4Afo3-&Key-Pair-Id=APKAIE5G5CRDK6RD3PGA)

[xxk4VxX0C4yr3UWzxgh7ieCt7QQmpFMRauvsVEwtGXGcY7uhNCE-M8zx9kpyDPoS8NR7fjBuMx2Xz2ANFwF1VqnjQ4Afo3-](https://oup.silverchair-cdn.com/oup/backfile/Content_public/Journal/nar/32/22/10.1093_nar_gnh177/1/gnh177_Supplementary_Data.zip?Expires=1680370010&Signature=xxk4VxX0C4yr3UWzxgh7ieCt7QQmpFMRauvsVEwtGXGcY7uhNCE-M8zx9kpyDPoS8NR7fjBuMx2Xz2ANFwF1VqnjQ4Afo3-&Key-Pair-Id=APKAIE5G5CRDK6RD3PGA)

[_&Key-Pair-Id=APKAIE5G5CRDK6RD3PGA](https://oup.silverchair-cdn.com/oup/backfile/Content_public/Journal/nar/32/22/10.1093_nar_gnh177/1/gnh177_Supplementary_Data.zip?Expires=1680370010&Signature=xxk4VxX0C4yr3UWzxgh7ieCt7QQmpFMRauvsVEwtGXGcY7uhNCE-M8zx9kpyDPoS8NR7fjBuMx2Xz2ANFwF1VqnjQ4Afo3-&Key-Pair-Id=APKAIE5G5CRDK6RD3PGA)>.

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Encoding UTF-8

LazyData true

Depends R (>= 2.10)

RoxygenNote 7.2.3

Imports magrittr, tibble

URL <https://github.com/ramiromagno/rutledge>

BugReports <https://github.com/ramiromagno/rutledge/issues>

NeedsCompilation no

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Repository CRAN

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R topics documented:

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qPCR data set by Rutledge et al. (2004)

Description

Each data set comprises a six-point, ten-fold dilution series, repeated in five independent runs, for two different amplicons: K1/K2, 102 bp, and K3/K2, 218 bp. Fluorescence readings were exported after background subtraction via baseline averaging of the 5 cycles immediately preceding the cycles in which fluorescence was first detected. Please read the Materials and Methods section of Rutledge et al. (2004) for more details.

Format

A **tibble** with 10,800 rows and 10 variables:

plate Plate identifier. Because one plate (run) was used per dilution series, plate values are simply numbered 1 thru 5.

well Well identifier. Values are always NA (not available). This variable is kept nevertheless to be coherent with other data sets from other similar R data packages.

dye The type of dye used. In this data set the values are always "SYBR", meaning SYBR Green I master mix (Roche).

target Target identifier: the amplicon used, K1/K2 or K3/K2.

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

replicate Replicate identifier: 1 thru 4.

copies Standard copy number.

dilution Dilution factor. Higher number means greater dilution.

cycle PCR cycle.

fluor Raw fluorescence values.

Source

[doi:10.1093/nar/gnh177](https://doi.org/10.1093/nar/gnh177)

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