Data sheet

Red-Taq DNA polymerase

Cat. No: P0027 5x 100 reactions
Ready-to-use

Introduction

Red Taq DNA polymerase is a ready-to-use 2,5x master mix that contains all PCR reaction components: **TruePurity** dNTPs, PCR buffer, Mg^{2+} and **Horse-Power Taq DNA polymerase**. Only primers and template need to be added.

The mix also contains an agarose loading buffer including a red dye for visual tracking of DNA migration and a dense compound to facilitate the drop-down of the samples into the well agarose gels.

Features

- Ready-to-use
- Adds extra nucleotides (preferentially adenine) without template at 3´ends leaving 3´overhangs PCR fragments. This fact allows the popular TA-cloning or GC cloning
- Both save times in the PCR process and in agarose loading samples.

Applications

- Design for medium or high throughput applications (e.g. colony screening)
- PCR fragments amplification for TA or GC cloning (preferably use a proofreading polymerase for cloning purpose and a blunt cloning vector) (see pSpark® DNA Cloning System **Cat. No: C0001**)

Assay conditions

25mM Tris-HCl pH9,0 at 25°C, 50mM KCl, 2mM MgCl2, 0,1mg/mL gelatine, 200 µM de dATP, dGTP, dTTP, 100µM[α32-P]dCTP (0,05µCi/nmol) and 12,5 µg activated salmon sperm DNA.

Unit definition: One unit is defined as the amount of enzyme required to catalyse the incorporation of 10 nanomoles of dNTPs into acid-insoluble material in 30 minutes at 74°C.

Concentration:

2,5X (Buffer Red 2,5X; dNTPs 0,5 mM each; **Horse-Power** Taq DNA polymerase 0,250 U/µL, Glycerol 30%).

Quality Certifications

- ✓ Functionally tested in PCR.
- ✓ Undetected bacterial DNA (by PCR).
- ✓ Undetectable nucleases activity (endo-, exo, and ribo-).

Storage: Store at -20°C.

(Continued on reverse side)

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Recomended PCR assay (20 µl assay)

Red Taq mix 2,5X	8µl (1X)
Forward Primer (15µM)	1µl (0,75 pmol/µL)
Reverse Primer (15µM)	1µl (0,75 pmol/µL)
Template DNAµ	plasmide: 30-75ng; gDNA: 100-500ng
PCR grade H20	up to 20 µl

Cycling instructions: 94ºC 5:00, 25-30x (94ºC 0:35, Tm 0:35, 72ºC 1'/kb), 72ºC 7:00, 4ºC ∞)

*Red dye Agarose Mobility**

Agarose Gel Concentration (%)	Effective separation of: (bp)	Migration Rate (bp)
0,7	800-12000	3000
1,0	400-8000	1500
1,5	200-3000	900
2,0	100-2000	300
3,0	25-1000	> 100

** in TAE Buffer*

PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively for research purposes and in vitro use only. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals. Please refer to **www.canvaxbiotech.com** for Material Safety Data Sheet of the product.

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