

DATA SHEET

Version: 2
Revision date: 25/04/2023Tlf: +34 983 54 85 63
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1. Identification

Product name	Horse-Power™ Green-Taq DNA Polymerase MasterMix 2X
Cat. No	100 rxn P0029-S

2. Description

Horse-Power™ Green-Taq DNA polymerase is a ready-to-use 2x master mix that contains all PCR reaction components: dNTPs, PCR buffer, Mg²⁺ and Taq DNA polymerase. Only primers and template need to be added. The mix also contains an agarose loading buffer including two tracking dyes (blue and yellow dye) for visual tracking of DNA migration and a dense compound to facilitate the drop-down of the samples into the well agarose gels. The blue dye (migrates with 3 to 5 kb DNA fragments in 1% agarose gel) and the yellow dye (migrates faster than 10 bp DNA fragments in 1% agarose gel).

3. Composition

Item	Quantity
Horse-Power Green-Taq DNA polymerase MasterMix 2X	1 mL

Concentration: 2X (Buffer Green 2X; dNTPs 0.4 mM each; HorsePower Taq DNA polymerase 0.2 U/μL, Glycerol 24%).

4. 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.

Quality:

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

5. Storage specifications

Store at -20° C

6. Applications

- Design for medium or high throughput applications (ex. colony screening).
- PCR fragments amplification for TA or GC cloning

7. Assay conditions

Enzyme activity is assayed in the following mixture: 25mM Tris-HCl pH 9.0 at 25°C, 50mM KCl, 2mM MgCl₂, 0.1mg/mL gelatine, 200 μM de dATP, dGTP, dTTP, 100μM Iα32-PIdCTP (0.05μCi/nmol) and 12.5 μg activated salmon sperm DNA.



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8. Recommended PCR Assay (20µL assay)

Green-Taq mix 2X	10µl (1X)
Forward Primer (15µM)	1µl (0.75 pmol/µL)
Reverse Primer (15µM)	1µl (0.75 pmol/µL)
Template DNA	plasmide: 30-75ng; gDNA: 100-500ng
PCR grade H ₂ O	up to 20 µL

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

9. Further information

- Product Use Limitation** This product is developed, designed, and sold exclusively only for research purposes use. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.
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