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DATA SHEET

Version: 3
Revision date: 06/05/2024

1. Identification

Product name **Horse-Power™ Taq DNA Polymerase Master Mix 2X**

Cat. No **P0035** (250 rxn)

Cat. No **P0036** (10,000 rxn)

2. Description

Horse-Power™ Taq DNA Polymerase Master Mix (2X) is an optimized easy- and ready-to-use Master Mix that contains all PCR reaction components: dNTPs, PCR buffer, Mg^{2+} and *Taq* DNA polymerase. Only primers and template need to be added.
The convenient 2x Master Mix formulation saves time and eliminates the risk of contamination due to a reduced number of pipetting steps required.
Horse-Power™ Taq DNA Polymerase is a versatile and thermostable recombinant enzyme produced in an *E. coli* strain under the best quality standards, ensuring consistency from lot to lot which guarantee the reproducibility.

3. Composition

Item	Quantity
Horse-Power™ Taq DNA Polymerase Master Mix 2X P0035	2 x 1.25 mL
Horse-Power™ Taq DNA Polymerase Master Mix 2X P0036	1 x 100 mL

Concentration: (Buffer PCR 2X; dNTPs 0.4 mM each dNTP (dATP, dCTP, dGTP and dTTP); 4 mM $MgCl_2$; Taq DNA polymerase 0.1 U/µL and Glycerol 4%.

4. Features

- Easy- and Ready-to-use.
- Highly efficient enzyme: High activity, specificity, thermostability and great performance in PCR
- 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.
- Available in different concentrations, sizes, including bulk, and solutions, like **Lyophilization-friendly** format. **Contact us** at info@canvaxbiotech.com

Quality:

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

5. Storage specifications

Store at -20° C

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6. Applications

- Routine amplifications. PCR and qPCR
- Amplifications up to 5 kb using plasmid, viral or genomic DNA as template
- Design for medium or high throughput applications (ex. colony screening).
- PCR fragments amplification for TA or GC cloning.
- Incorporation of labeled nucleotides
- High-throughput PCR.

7. Unit definition

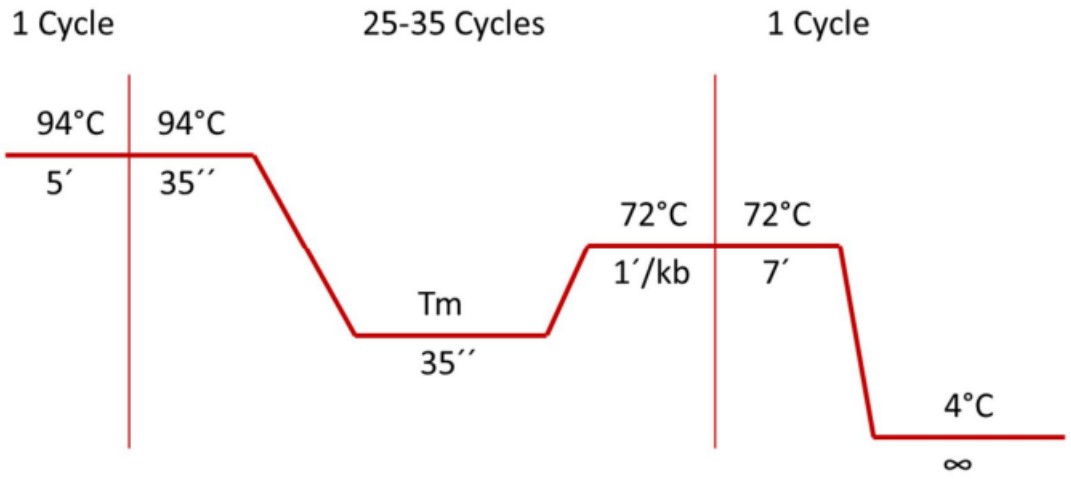
One unit is defined as the amount of enzyme required to catalyse the incorporation of 10 nanomoles of dNTPs into acid-insoluble material in 30 minutes at 74 ˚C under standard assay conditions

8. Recommended PCR Assay (20µL assay)

The following protocol can be used as a starting point for reaction optimization. The optimal conditions will vary from reaction to reaction and are dependent on the template/primers used.

Taq DNA Polymerase Master mix 2X	10µl (1X)
Forward Primer (15µM)	1µl (0.75 pmol/µL)
Reverse Primer (15µM)	1µl (0.75 pmol/µL)
Template DNA	plasmid: 30-75ng; gDNA: 100-500ng
PCR grade H_2O	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 ∞)



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9. Further information

Product Use Limitation

This product is Manufactured by Canvax Reagents SLU, in facilities certified ISO13485 and ISO9001 and according to GMP following ICHQ7. For further processing in clinical or diagnostic applications, but not suitable for administration to humans or animals.

Disclaimer

The information provided in this Data Sheet is correct to the best of our knowledge and belief at the date of publication. This information is intended only as a guide and should not be taken as a warranty or quality specification. Canvax Reagents S.L.U. shall not be held liable for any damage resulting from handling or from contact with the above product.