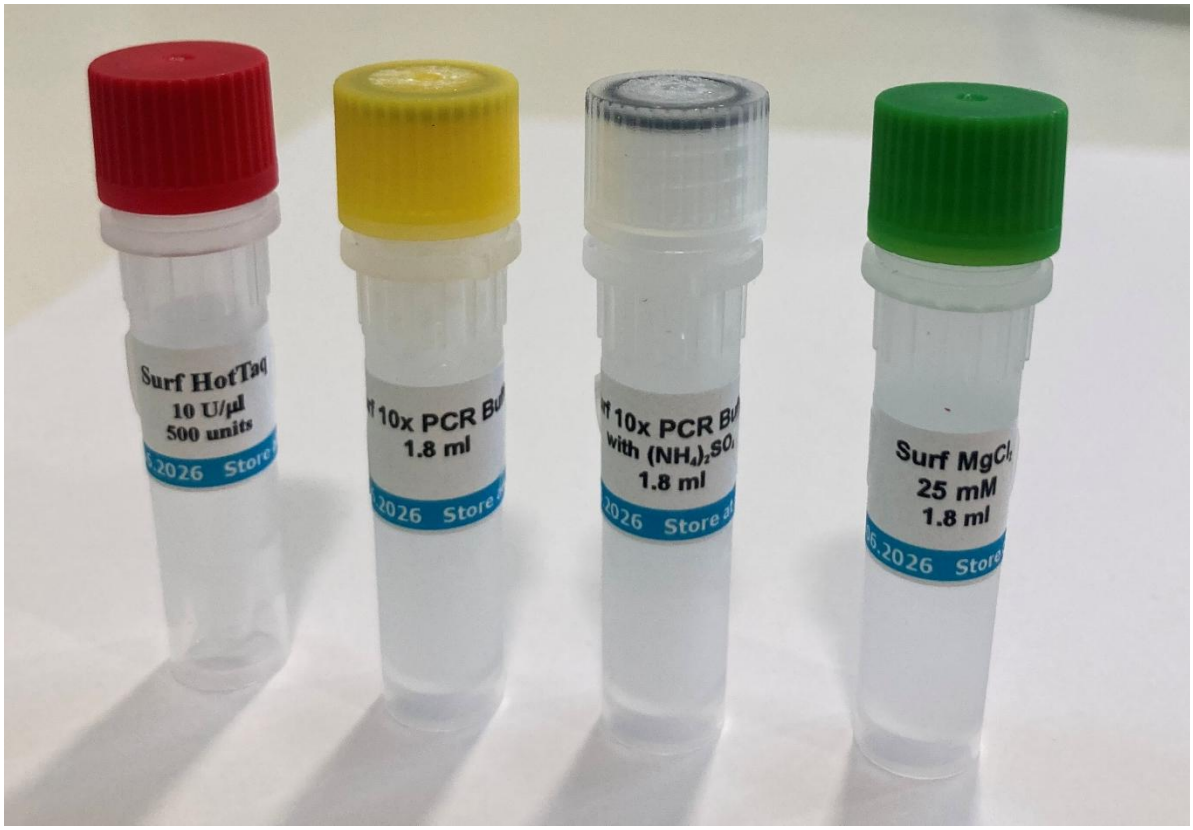
Doctor Vida

Surf HotTaq DNA polymerase

Ref. 114 001 001



Índex

OVERVIEW

The Doctor Vida Surf HotTaq DNA Polymerase is a chemically modified Taq DNA polymerase. The enzyme is inactive at room temperature, having no polymerase activity. To activate this enzyme it should be incubated at 95ºC-97ºC for 15 minutes as a first PCR step. Purified from a recombinant E.coli strain with cloned gene enconding Thermus aquaticus DNA polymerase. Surf HotTaq DNA Polymerase has 5´-3´DNA synthesis activity.

APPLICATIONS

Suitable for PCR reactions. This enzyme allows the PCR setup at room temperature without nonspecific annealing and extension.

KIT CONTENTS

- **Surf HotTaq DNA Polymerase** in storage buffer: 20mM Tris-HCl (pH 8.0), 1mM DTT, 0.1 mM EDTA, 100 mM KCl, 0.5% Nonidet P40, 0.5% Tween 20 and 50% glycerol .
- **10x PCR buffer**: 100 mM Tris-HCl (pH 8.8 at 25ºC), 500 mM KCl, 0.8% Nonidet P40.
- **10x PCR buffer with $(NH4)_2$ SO4:** 750 mM Tris-HCl (pH 8.8 at 25ºC), 200 mM $(NH4)_2$ SO4, 0.1% Tween 20.
- **25 mM $MgCl_2$ solution**

SHIPPING AND STORAGE

The product is shipped at room temperature and stored at -20ºC.

PRODUCT USE LIMITATIONS

The Doctor Vida Surf HotTaq DNA Polymerase is intended for research use only. This product is not intended for the diagnosis, prevention, or treatment of a disease.

SAFETY INFORMATION

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the safety data sheet (SDSs) available online in convenient and compact PDF format at https://doctorvida.store/. STAB VIDA recommends to have available the contacts of medical emergency and poison center for all staff members.

EQUIPMENTS AND REAGENTS NOT PROVIDED WITH THE PRODUCT

- Pipets and pipet tips (aerosol resistant)
- Laboratory consumables
- dNTP mix
- Primers
- Nuclease free water

PROTOCOL

1. Perform PCR reaction

Important note: The use of a non-template reaction (e.g. nuclease free water) and positive control are recommended.

1.1 Each test tube is prepared in accordance with the following table:

Important Note: This protocol can be used as a starting point; however, the PCR reaction may require further optimization.

	Quantity
Surf HotTaq (10U/uL)	1.25-2.5U
10x PCR Buffer (or with $(NH4)_2 SO_4$)	5µL (1X)
25 mM $MgCl_2$	3-5µL (1.5-2.5 mM)
10 mM dNTP mix	1 µL (200 µM)
Primer Forward	0.3-1 µM
Primer Reverse	0.3-1 µM
DNA template	1-100 ng/µL
Nuclease free water	Up to 50µL
Total	**50µL**

1.2 Mix well all the components.

1.3 Recommended PCR cycles:

Cycle step	**Temperature**	**Time**	**Cycles**
Initial denaturation	95ºC	15 min	1
Denaturation	95ºC	30-60s	26-35
Annealing	50-68ºC	30-60s	
Elongation	72ºC	1-4 min	
Final elongation	72ºC	5-10 min	1

Important: Annealing temperature should be 2-6ºC lower than the primer melting temperature.

MANUFACTURER INFORMATION

Name: STAB VIDA- Research and Services in Biological Sciences, Lda.
Address: Madan Parque, Rua dos Inventores, Sala 2.18, 2825-182 Caparica, Portugal.
Site: www.stabvida.com
Technical assistance:

+351 938 437 766

In case of any problem, please contact us by email drvida@stabvida.com or phone 00351 938 437 766 (Call to national mobile network)
Monday to Friday from 8:30 am to 5:30 pm. (GMT time)