WIRAGEN
Molecular Research Tools

TECHNICAL SHEET:

Taq Polymerase HOT START

Ref : PW02

Concentration : 5 units/µl
Quantity : 250 Units

Storage: at -20°C for two years

Description:

This product is a hot-start Taq DNA Polymerase modified with anti-Taq monoclonal antibody. Anti-Taq monoclonal antibody binds to Taq enzyme before high temperature heating, inhibits polymerase activity, thereby inhibiting non-specific amplification caused by non-specific annealing or primer dimer under low temperature conditions. The anti-Taq monoclonal antibody has been denatured in the initial DNA denaturation step of the PCR reaction, so no special inactivation treatment is required and it can be used under conventional PCR reaction conditions. In the qPCR reaction, the amplification efficiency of the fluorescent PCR can be significantly improved (especially for the low copy number template), and the perfection of the amplification curve can be improved, and it has good stability, high repeatability and strong specificity. At room temperature for one week, the activity of this enzyme can remain above 95%.

Unit Definition:

One unit (U) is defined as the amount of enzyme required to catalyze the incorporation of 10nmol of dNTP into an acid-insoluble material in 30 minutes at 74°C, with activated salmon sperm DNA used as template.

Applications:

It is often used to amplify no more than 6 kb fragments such as PCR, DNA marker, primer extension, sequence determination, flat end plus A. The product can be used for TA-Vector cloning directly.

PCR condition:

The pre-denaturation temperature is 95°C for 5-10 minutes. The other reaction conditions are the same as the ordinary Taq enzyme.

Quality Control

Purity of Taq DNA Polymerase detected by SDS-PAGE more than 99% and no exogenous nuclease activity after detection. There is no host remain DNA detect by PCR, it can amplify the single copy genes in Human Genome. There is no enzyme activity change after store at room temperature for one week.

Storage Buffer

20 mM Tris-HCl (pH 8.0), 0.1 mM EDTA, 1 mM DTT, 100 mM KCl, 50% glycerol, stabilizers

Reaction Components (50µl Volume)

Component	Volume
Template	<0.5µg
Forward Primer (10 µM)	1µl
Reverse Primer (10 µM)	1µl
10x Taq HOT START Buffer	5µl
DNTP (2.5mM each)	4µl
Hot Start Taq DNA Polymerase	0.5-1µl
ddH2O	50µl

Téléphone : 041 40 42 27 / 0770 79 40 20 / 0770 57 59 09
Facebook/Instagram : @wiragen.sarl
Site : www.wiragen.com
E-mail : contact@wiragen.com / wiragen.mena@gmail.com
Siège social : Local 01 lotissement Si Redouane 02 N°16 Senia
Siège formation : 12 Rue de Nancy, Résidence Col.Othmane, Oran