Taq Antibody

Item No.: T665894
Storage condition: -20℃

Product content

Component	T665894-2500U
Taq Antibody (5U/μl)	5×100μl

Product Introduction

Taq Antibody is an anti-Taq enzyme mouse monoclonal antibody for Hot Start PCR. Taq Antibody binds to Taq enzyme and inhibits DNA polymerase activity, thus effectively inhibiting non-specific annealing of the primer and non-specific amplification caused by the primer dimer at low temperatures. Taq Antibody denatures DNA polymerase in the initial DNA denaturation step of the PCR reaction to achieve the Hot Start effect. The Taq Antibody is denatured during the initial DNA denaturation step of the PCR reaction, and the DNA polymerase activity is restored to achieve the hot start effect. Therefore, no special inactivation of the Taq Antibody is required.

Product Features

Inhibits >95% of polymerase activity at 37° C.
Improves the specificity and sensitivity of PCR reactions, including complex human genomic DNA or cDNA templates, low-copy templates, multiplex PCRs, etc.
PCR reactions are faster than normal chemically modified polymerases.

Activity Definition

Taq Antibody was mixed with Taq DNA Polymerase and incubated at 25° C for 15min before being incubated at 37° C for 30min.
The amount of Taq Antibody that inhibits 97% or more of the Taq DNA Polymerase activity of 1U under the conditions is defined as 1U.

Usage

Mix Taq DNA Polymerase and Taq Antibody in equal volumes and leave at 20-25° C for 15 min on ice for use.
Note: Through experiments, we suggest that the ratio of the number of molecules mixed with Taq Antibody and Taq DNA Polymerase is more appropriate at 13:1. In practice, due to the different primers, target products or Taq DNA Polymerase, a series of ratios can be mapped out to get the most appropriate results.
The following example shows the PCR reaction system and reaction conditions for amplifying a 300bp fragment using human genomic DNA as a template, which should be improved and optimized according to the template, primer structure and size of the target fragment in actual operation.

PCR reaction system

reagents	50μl reaction system
10× PCR Buffer	5 μl
dNTP Mix, 10μM each	1μl
Forward Primer, 10μM	1μl
Reverse Primer, 10μM	1μl
Template DNA	4 μl
Mixture of Taq enzyme and antibody	0.36μl
ddH_2O	up to 50μl

PCR reaction conditions can be performed according to the conventional PCR reaction conditions for DNA Polymerase for various PCRs.

Step	Temperature	time	
Pre denaturation	94° C	2min	
denaturation	94° C	30s	25-35 cycles
annealing	55-65° C	30s	
Extend	72° C	30s	
Final extension	72° C	2min	