

Champagne Taq antibody

Catalog # P121-01



Version 5.1

Vazyme biotech co., ltd.

1. Introduction

Champagne Taq antibody is a monoclonal antibody against Taq DNA polymerase, and it can bind to Taq DNA polymerase to inhibit its DNA polymerase activity. Champagne Taq antibody has a very high affinity to Taq enzyme and can block the activity of Taq DNA polymerase at 65°C, thus Champagne Taq antibody can effectively inhibit the production of primer polymers and nonspecific amplifications. Champagne Taq antibody can be completely inactivated by heating at 95°C for 30s, and then release the Taq DNA polymerase activity. Therefore, Champagne Taq antibody is applicable to various hot-start PCR and qPCR reactions.

2. Package Information

Component	P121-01
Champagne Taq antibody (5 U/μl)	100 μl

3. Storage

Store at -20°C.

4. Unit Definition

1 U is defined as the required amount of antibody that can inhibit 95% activity of 1 U of Taq DNA Polymerase at 55°C for 30 min.

5. Quality Control

Inhibition of Taq Polymerase Activity: Mix Champagne Taq antibody and Taq DNA Polymerase with an activity ratio of 1:1; add this mixture into M13 reaction mixture; incubate at 65°C for 30 min; the released Taq DNA polymerase activity is less than 5%.

Heat Treatment: Taq DNA polymerase activity was confirmed to recover with more than 95% in the reaction at 65°C for 30 min after heating treatment at 95°C for 30 seconds.

Exonuclease Activity: A reaction mixture containing 10 U of Champagne Taq antibody and 0.6 μg of λ-Hind III was incubated for 16 hours at 37°C resulted in no visually discernible change to DNA as determined by agarose gel electrophoresis.

Endonuclease Activity: A reaction mixture containing 10 U of Champagne Taq antibody and 0.6 μg of supercoiled pBR322 DNA was incubated for 4 hours at 37°C resulted in no visually discernible conversion to nicked circular DNA as determined by agarose gel electrophoresis.

RNase Activity: A reaction mixture containing 10 U of Champagne Taq antibody and 1 μg of total RNA of Hela cell was incubated for 1 hour at 37°C resulted in no visually discernible change to RNA as determined by agarose gel electrophoresis.

Mouse Genomic DNA Contamination Test: 10 U of Champagne Taq antibody was screened for the presence of mouse genomic DNA using TaqMan qPCR with primers specific for the IAPE locus. Results are quantified using a standard curve generated from purified mouse genomic DNA. The measured level of mouse genomic DNA contamination is < 10 copies of mouse genome.

6. Protocol

Mix the Taq DNA Polymerase (5 U/μl) and the Champagne Taq antibody (5 U/μl) with same volume for 10 min at 20-25°C.



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