

Anti-Taq DNA Polymerase Antibodies

Description

Anti-Taq DNA polymerase antibody is generally utilized in antibody-mediated hot-start PCR to enhance the specificity and sensitivity of PCR. By binding to Taq polymerase, this antibody inhibits polymerase activity and prevents non-specific amplification due to misabsorption and/or formation of primer dimers before the reaction temperature rises. Consequently, Taq polymerase is only active at elevated temperatures when the antibody denatures and releases its control over Taq polymerase. This prevents the formation of primer dimers and non-specific amplification during PCRs. As a result, the experimental background is significantly decreased, and the reaction specificity is increased.

Features

- Exceptionally pure. No contamination of mouse genomic DNA detected by PCR.
- Ideal enhancer for PCR reactions or when other hot start methods are difficult to perform (e.g., capillary PCR).
- Room temperature inhibition allowed. $\geq 95\%$ inhibition of polymerase activity at 65°C .
- $\geq 95\%$ of polymerase activity is reversed after 30s incubation at 95°C .
- Primer dimer prevented. False positive results eliminated.
- Enhanced specificity, sensitivity, and yield of PCR. Suitable for low-copy number PCR.

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Related Items

Items	Products	Items
Taq DNA Polymerase Antibodies	Mouse Anti-Taq DNA Polymerase Monoclonal Antibody, Clone 9D2 [DMAB8620]	1mg, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg, Bulk
	Mouse Anti-Taq DNA Polymerase Monoclonal Antibody, Clone 9D2D [DMAB8621]	1mg, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg, Bulk
Diluent Buffer	Diluent Buffer [Upon Requests]	1 ml, Other

User Guidance

- Calculation: 1 mg Anti-Taq DNA Polymerase monoclonal antibody is recommended for blocking 4400 IU Taq DNA Polymerase. However, the “Antibody/Enzyme Ratio” varies strongly from preparation to preparation. Each laboratory should determine an optimum working ratio for use in its particular application. (For each Taq DNA polymerase or Taq from different batches, an antibody titration test must be performed to find the best ratio of antibody to Taq DNA polymerase.)
- Incubation: Mix the antibody and Taq DNA polymerase and incubate this mixture at 37 °C for 1h.
- Activation: Activate the Antibody-Enzyme complex at -20 °C for at least 8h.
- Storage: This mixture is stable at -20 °C for up to 6 months.
- Trouble Shooting: If a decrease in inhibition efficiency is observed, please recalculate the “Antibody/Enzyme Ratio” and repeat the “Incubation” and “Activation” steps.