Taq Polymerase Recombinant Monoclonal Antibody [TP7]

Mouse Recombinant Monoclonal

Purified

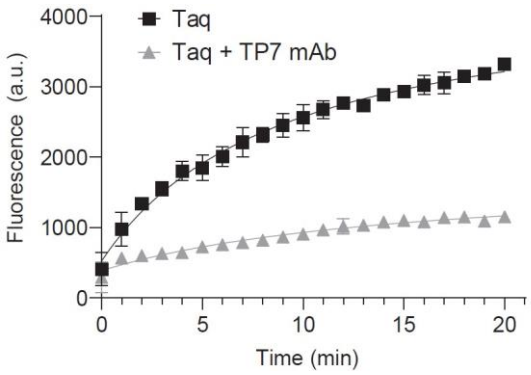
Catalog No. A700-278 Uniprot ID P19821

Lot No. 1

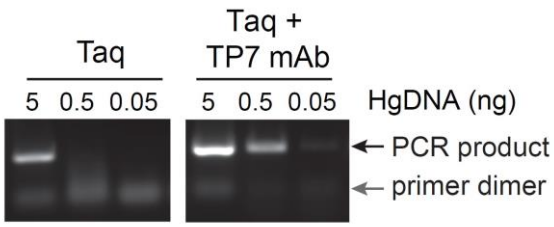
APPLICATIONS	HotStart PCR
AMOUNT	100 µl
CONCENTRATION	1000 µg/ml
STORAGE/SHELF LIFE	2 - 8°C / 1 year from date of receipt
PHYSICAL STATE	Liquid
BUFFER	Phosphate Buffered Saline (PBS) pH 8.2 with 0.09% Sodium Azide, BSA-Free
ISOTYPE	IgG2a
CLONE #	TP7
ORIGIN	USA
PRODUCTION PROCEDURES	Recombinant antibody was purified from cell culture supernatant. Immunogen was Taq polymerase.
APPLICATIONS	Centrifuge tube to remove product from lid. Optimal working dilutions should be determined experimentally by the investigator. Prepare working dilution immediately before use. HotStart PCR 1ug of mAb per 5U of Taq
ADDITIONAL INFO	https://www.fortislife.com/p/A700-278 Use the link above to view SDS, a current list of citations, and other product specific information.

This document certifies that this product has met all of the quality control standards defined by Bethyl Laboratories, Inc.

Michael Spencer, PhD Date: June 30, 2023



Anti-Taq [TP7] inhibits Taq polymerization activity. *Antibody:* Mouse anti-Taq Polymerase Recombinant Monoclonal Antibody [TP7] (A700-278 lot 1). Taq DNA polymerase activity was measured at 30°C over a 20-minute timecourse using a fluorescent assay for DNA primer extension on a ssDNA template. Addition of 1 µg of antibody to 5 units of wild-type Taq DNA polymerase suppresses its basal polymerization rate and prevents off-target DNA amplification prior to thermocycling.



Anti-Taq [TP7] decreases primer dimer formation and increases PCR sensitivity. *Antibody:* Mouse anti-Taq Polymerase Recombinant Monoclonal Antibody [TP7] (A700-278 lot 1). Amplification of a 306 basepair region of the human Numb gene was performed with forward and reverse primers that are prone to low temperature annealing due to complementarity at their 3' ends (Kubu. Biotechniques. 2008). At ambient temperatures, Taq DNA polymerase will extend the annealed primer dimers and create a low molecular weight product that prevents proper amplification of the target sequence. At low template abundance (<5 ng of human genomic DNA [hgDNA]), wild-type Taq is unable to amplify the target sequence due to formation of primer dimers. Addition of the anti-Taq [TP7] monoclonal antibody (A700-278) decreases primer dimer extension at ambient temperatures and permits detection of the target sequence at template concentrations 100-fold lower than when Taq is used