Reagent for Hot Start PCR

Taq Antibody

**Code No. 9002A**
Size: 250 units
**Shipping at -20°C**
**Stored at -20°C**

Lot No.
Conc.: units/μl
Volume: μl
Expiry Date:

**Description:** This product is a monoclonal antibody to Taq DNA polymerase for use in Hot Start PCR. By binding to Taq polymerase, this antibody inhibits the polymerase activity and prevents non-specific amplification derived from mispriming and/or formation of primer dimer before PCR cycling. The antibody is denatured during the initial denaturation step, so there is no need for a special denaturation step. Taq polymerase can be used in general PCR conditions.

**Storage Buffer:**
- 25 mM Tris-HCl (pH 8.0)
- 100 mM KCl
- 37.5 mM NaCl
- 0.1 mM EDTA
- 1 mM DTT
- 0.5% Tween® 20
- 0.5% Nonidet P-40®
- 50% Glycerol

**Unit definition:** One unit is the amount of Taq Antibody that inhibits 1 unit of Taq polymerase activity by more than 90% after the incubation at 55°C for 10 min. Prior to this incubation, Taq antibody should have been bound to Taq polymerase through incubation at 25°C for 10 min.

**Purity:**
Nicking activity, endonuclease and exonuclease activity were not detected after the incubation of 1 μg of supercoiled pBR322 DNA, 1 μg of λDNA or 1 μg of λ-Hind III digest with 10 units of Taq Antibody for 1 hour at 37°C and 70°C respectively.
RNase activity was not detected after incubation of 1 μg of 16S, 23S rRNA with 10 units of Taq Antibody for 1 hour at 37°C.

No contamination with mouse genomic DNA was confirmed by 35 cycles of PCR.

**Application:**
For DNA amplification by Hot Start Polymerase Chain Reaction (PCR).

**Performance test:**
1. Inhibition of Taq polymerase activity by the antibody was confirmed to be more than 90% in the reaction at 55°C for 10 min. after the incubation of the mixture of Taq Antibody and Taq polymerase at 25°C for 10 min.
2. Taq polymerase activity was confirmed to recover almost 100% in the reaction at 55°C for 10 min. after heat treatment at 94°C for 30 sec.

**Protocol:**
1) Mix gently TaqDNA polymerase and Taq Antibody in the same volume, and leave without move at 20-25°C for approximately 10 min. The two solutions must be mixed without any dilution.
2) Perform PCR by following the protocol of an used TaqDNA polymerase.

Takara confirmed that Taq Antibody works effectively in conjunction use with TaKaRa Taq™ (#R001), TaKaRa Ex Taq™ (#RR001), TaKaRa LA Taq™ (#RR002), TaKaRa Z-Taq™ (#RR006).

**Related products:**
- TaKaRa Taq™ Hot Start Version (TaKaRa Code R007A/B)
- TaKaRa Ex Taq™ Hot Start Version (TaKaRa Code RR006A/B)
- TaKaRa Ex Taq™ R-PCR Version (TaKaRa Code RR007A/B)

* These Taq polymerases are already bound with Taq Antibody.

**Note**
For research use only. Not for use in diagnostic or therapeutic procedures.

**NOTICE TO PURCHASER**
This product is optimized for use in the Polymerase Chain Reaction ("PCR") covered by patents owned by Hoffmann-La Roche Inc. and F. Hoffmann-La Roche Ltd. ("Roche"). No license under these patents to use the PCR process is conveyed expressly or by implication to the purchaser by the purchase of this product. A license to use the PCR process for certain research and development activities accompanies the purchase of reagents from licensed suppliers such as Takara Shuzo Co., Ltd. when used in conjunction with an authorized thermal cycler, or is available from Applied Biosystems. Further information on purchasing licenses to practice the PCR process may be obtained by contacting the Director of Licensing at Applied Biosystems, 850 Lincoln Centre Drive, Foster City, California 94404 or at Roche Molecular Systems, Inc., 1145 Atlantic Avenue, Alameda, California 94501.

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