Taq DNA Polymerase Hot-Start with Standard Buffer (+ dNTPs)

Product code	02-004　200 U　　02-004-5　200U x 5
Size	200 U
Storage	-20℃
Concentration	1 U/μl
Product Description	Hot Start PCR enzyme system containing Taq DNA polymerase and anti-Taq DNA polymerase antibody that neutralizes Taq polymerase until reaction starts at high temperature, thus inhibiting non-specific amplification and enhances production of specific product as shown in Fig.1. The antibody is active at low and ambient temperatures and inactivated at high temperature.
Definition of activity	One unit is defined as the amount of enzyme that can incorporate 10nmols of total dNTPs into an acid-insoluble material in 30 minutes at 74℃ when activated salmon sperm DNA was used as template / primer.
Purity	> 95% as examined by SDS-PAGE. End- and Exo-DNase free
PCR Test	Good PCR amplification has been confirmed with Lambda phage DNA as template.
Components	**Taq DNA polymerse Hot-Start Mixture**: Taq DNA polymerase (1 unit/μl), 20 mM Tris-HCl (pH 8.0), 100 mM KCl, 0.1 mM EDTA, 1 mM DTT, 50% glycerol, 0.5% Tween20, 0.5% Igepal CA-630, anti Taq antibody (0.8 μg/ml) (02-Atq)　(02-Hta 200μl) **10 x Standard Buffer (Taq)**: 100 mM Tris-HCl (pH 8.3), 500 mM KCl, 15 mM $MgCl_2$ (02-Tsd 1.0ml) **2.5 mM (each) dNTPs**: (02-Dnth 800 μl)
Application	Composition of PCR-reaction solution (total 50μl) Taq DNA polymerase Hot-Start Mixture (02-Hta) ※1 μl 10x Standard Buffer (02-Tsd) 5 μl 2.5mM (each) dNTPs (02-Dnt) 4 μl Template <500 ng Primer 1 0.2~1.0 mM (final conc.) Primer 2 0.2~1.0 mM (final conc.) Pure water up to 50 μl ※ Use of excess enzyme solution may have advers effect **Fig.1 Amplification Example** PCR conditions 98℃ 10 sec 60℃ 30 sec 25 cycles 72℃ 1 min. The numb gene region was amplified by PCR with human genomic DNA as template. Hot Start PCR system (lane 1) works much better than conventional PCR (lane 2) for this genetic locus. 

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

BioAcademia,Inc. Tel. 81-6-6877-2335　Fax. 81-6-6877-2336 info@bioacademia.co.jp　https://www.bioacademia.co.jp/en/