Hot-Start Taq DNA Polymerase (+ dNTPs)

02-004　200 Units,　　02-004-5　5 x 200 Units

Storage : Ship at 4℃or -20℃. Store at -20 ℃ . Do not store below －20℃ to avoid freezing.

Product description : Hot Start PCR enzyme system containing Taq DNA polymerase and anti-TaqDNA 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

P C R : Good PCR amplification has been confirmedwith Lambda phage DNA as template.

Reaction (total 50μl)

Taq DNA polymerase Hot-Start Mixture	* 1.0 μl
10x Standard Buffer (Taq)	5 μl
2.5mM (each) dNTPs	4 μl
Template	<500 ng
Primer 1	0.2～1.0 μM (final conc.)
Primer 2	0.2～1.0 μM (final conc.)
Pure warer	up to 50 μl

Use of excess enzyme solution may have advers e effect.

Taq DNA polymerse Hot-Start Mixture : Taq DNA polymerase (1 unit/μl), 20 mM Tris-HCl (pH 8.0), 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% glycerol, 0.5% Tween20, 0.5% Igepal CA-630, 抗 Taq 抗体 (0.8 μg/ml)　（#02-Hta)

10 x Standard Buffer (Taq) ; (100 mM Tris-HCl (pH 8.3) , 500 mM KCl, 15 mM $MgCl_2$)（#02-Tsd 1ml ）

2.5 mM (each) dNTPs　（#02-Dnth 800ul)

Fig.1 Amplification Example

PCR conditions

98 ° C　10 sec

60 ° C　30 sec　25　cycles

72 ° C　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.

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