Tinzyme Co., Limited

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HotStart Taq DNA Polymerase (Glycerol-Free)

Product Number: PC17GF

Shipping and Storage

-20℃.

Components

Component	PC17GF
HotStart Taq DNA Polymerase (Glycerol-Free) (5U/μl)	50μl
5×HotStart Taq Buffer with Mg^{2+}*	1ml×2

Note:*Not suitable for freeze-drying.

Description

This product is a product of Taq enzyme processed by special processes. After chemical modification, the polymerase activity of Taq enzyme is inhibited before heating to high temperature, thereby inhibiting non-specific amplification caused by primer non-specific annealing or primer dimerization under low temperature conditions. This product is suitable for high-specificity PCR reactions, Multiplex PCR, high GC content (>60%), secondary structure, and other genome amplification and large-scale genome amplification detection with strong background.

This product does not contain components such as glycerol that affect the freeze-drying process and can be used for the preparation of freeze-drying reaction systems and product design.

Application

1. High specificity PCR reaction;
2. Complex template amplification;
3. Multiplex PCR;
4. Genomic amplification testing;
5. Fluorescence quantitative PCR.

Unit definition

After thermal activation, the amount of enzyme required to catalyze the incorporation of 10nmol dNTPs into acid insoluble substances within 30 minutes at 74℃ is one unit.

Quality control

After multiple column purification, only a clear and single target band was visible in SDS-PAGE gel detection. qPCR method detected no residual Escherichia coli DNA and no contamination of nucleic acid endonucleases and exonucleases.

Suggestion

The PCR product amplified using this reagent has a prominent "A" base at the 3 'end, which can be directly cloned into a T vector.

Protocol

1. Common reaction systems (50μl)

5×HotStart Taq Buffer with Mg^{2+}*	10μl
Upstream primer	0.2-1.0μM(Final Conc.)
Downstream primer	0.2-1.0μM(Final Conc.)

dNTPs (10mM each)	1μl
Template	1-50ng(Plasmid) 10ng-1μg(Genome)
HotStart Taq DNA Polymerase	0.25μl(1.25U)
ddH_2O	Up to 50μl

2. Common PCR reaction programs:

2.1. Two step method:

Step	Cycles	Temperature	Time
Pre denaturation	1	94℃	5min
Denaturation	30	94℃	5s
Annealing/Extension		68℃	1Kb/60s
Final extension	1	72℃	5min
Heat preservation	1	4℃	Heat preservation

2.2. Three step method:

Step	Cycles	Temperature	Time
Pre denaturation	1	94℃	5min
Denaturation	30	94℃	20s
Annealing		50-60℃	20s
Extension		72℃	1Kb/60s
Final extension	1	72℃	5min
Heat preservation	1	4℃	Heat preservation