enzynomics

*n*Taq-Pure HOT

Cat.#	Size	Conc.
P725P	250 units	5 units/μl
P750P	500 units	5 units/μl

Store at -20℃

Supplied with: 10X *n*Taq-HOT Buffer
dNTP Mixture(2 mM each)
Sterile water

India Contact:

Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura,
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Mobile: +91-9810521400
Fax: +91-11-42208444
Email: customerservice@lifetechindia.com
Web: www.lifetechindia.com

Product description

*n*Taq-Pure HOT is a highly purified polymerase especially for PCR reactions where freedom from bacterial genomic DNA is essential. *n*Taq-Pure HOT is a hot start PCR polymerase which remains inactive at temperatures lower than 75℃. Nonspecific elongation of incorrectly annealed primers before initiation of PCR reaction is one major cause of non-specific DNA amplification. For this reason, amplification of nonspecific bands can be effectively prevented by using *n*Taq-Pure HOT, thus increasing the specificity of target DNA amplification. In addition, *n*Taq-Pure HOT was purified by state of the art technology for minimizing the *E. coli* genomic DNA contamination. PCR product was not detected after 40 cycles of amplification using *E. coli* 16S RNA primer.

Characteristics

- Absolutely free from *E. coli* genomic DNA contamination
- Molecular weight: 94 kDa
- Error rate: 2.4 X 10^{-5}
- Thermal stability: Half life of 40 min at 95℃
- A-tail formation at 3' ends of amplified duplex DNA
- No activity at temperatures lower than 75℃. Heating up to 95℃ results in activation of enzyme

For Research Use Only. Not for use in diagnostic procedures.

ISO9001 ISO14001 ISO13485

Quality control

- Purity: >99% on SDS-PAGE
- Endonuclease-free
- Exonuclease-free
- RNase-free
- Inhibitor-free

Applications

- High specific amplification of DNA fragments shorter than 3 kb.
- Amplification of cDNA and genomic DNA.
- Amplification of template DNA with secondary or higher ordered structure that is resistant to PCR amplification
- Well-suited for an automated PCR machines, for which PCR reaction mixtures are prepared at room temperature
- Primer extension
- Multiplex PCR

Cautions

When *n*Taq-Pure HOT DNA is used, initial denaturation of 10 min is required to ensure effective activation of the enzyme.

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Your Molecular & Cell Technology Partner

Standard PCR conditions

- PCR mixture

10X *n*Taq-HOT Buffer	2 μl
*n*Taq- Pure HOT[a] (5 units/μl)	0.2 μl
dNTP Mixture (2 mM each)	2 μl
Template DNA[b] (0.1~500 ng/μl)	1 μl
Primer 1 (5 pmole/μl)	1 μl
Primer 2 (5 pmole/μl)	1 μl
Sterile water	up to 20 μl
[a]Add the PCR polymerase at the final step	
[b]Plasmid DNA, 0.1 ng~30 ng; genomic DNA, 50 ng~500 ng	

- PCR cycle

Initial denaturation[a]	95℃	10 min
Denaturation	95℃	30 sec
Annealing[b]	55℃~65℃	30~60 sec
Elongation	72℃	1 min/kb
Number of cycles	25~35 times	
Final elongation	72℃	5 min
When cycles are over, keep the reaction mixture at 4℃; may add 10 mM EDTA until use to prevent DNA degradation.		
[a]At least 10 min of initial denaturation time is required to fully activate the chemically modified PCR DNA polymerase		
[b]Recommended annealing temperatures is 5 to 10℃ below the lower Tm of the two primers used.		

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