Shanghai GenePharma Co., Ltd.
1011 Halei Road, Zhangjiang Hi-Tech Park, Shanghai201203
Tel:+86 21 51320195 Fax:+86 21 51320295
Email：service@genepharma.com www.genepharma.com

GenePharma™ SBS Polymerase, Terminator III

Catalog: J01001-500

J01001-1000

Store at –20℃

Description:

GenePharma™ SBS Polymerase, Terminator III is a 9°N DNA Polymerase variant with an enhanced ability to incorporate modified nucleotides such as 3′-amino-dNTPs, 3′-azido-dNTPs and other nucleotide analogs modified at the 3′ ribose position.

Source: An E. coli strain that carries the 9°N DNA Polymerase gene, a genetically engineered form of the native DNA polymerase from Thermococcus species 9°N-7。

Supplied in: 10mM Tris-HCl (pH7.5 @ 25°C), 100 mM KCl,1 mM dithiothreitol, 0.1 mM EDTA, 50% glycerol.

Applications:

•Incorporation of nucleotide analogs with 3′- OH substitutions.

•DNA sequencing using 3′-azido-ddNTP chain terminators.

•SNP analysis with 3′-azido-ddNTP chain terminators.

•DNA labeling with 3′-amino-ddNTP.

Reagents Supplied with Enzyme: 10×Terminator III Buffer.

Reaction Conditions: 1×Terminator III Buffer, DNA template, primer, 200 μM dNTPs and 0.5–2units of GenePharma™ SBS Polymerase, Terminator III in a total reaction volume of 100 μl.

1×Terminator III Buffer：

20 mM Tris-HCl; 10 mM $(NH_4)_2SO_4$; 10 mM KCl; 2 mM $MgSO_4$; 0.1% Triton X-100; pH 8.8 @ 25°C.

Suzhou GenePharma Co., Ltd.
199 Dongping Street,Suzhou Industrial Park,China,215123
Tel:+86 512 86668828 Fax:+86 512 86665900
Email：szservice@genepharma.com www.genepharma.com

Unit Definition:

One unit is defined as the amount of enzyme that will incorporate 10 nmol of dNTPs into acid insoluble material in 30 minutes at 75°C.

Heat Inactivation: No

Enzyme Properties: 3′→ 5′ Exonuclease: No 5′→ 3′ Exonuclease: No Strand Displacement: Yes

Molecular Weight: 90,000 Daltons.

Quality Control Assays

Exonuclease Activity: Incubation of a 20µl reaction in 1×Terminator III Buffer containing a minimum 2 unit SBS Polymerase, Terminator III with 1µg human genomic DNA for 1 hour at either 37°C or 75°C without obvious degrade band by agarose gel electrophoresis releases.

Endonuclease Activity: Incubation of a 20µl reaction in 1×Terminator III Buffer containing a minimum 2 unit SBS Polymerase, Terminator III with 1µg of supercoiled PUC57 DNA for 1hour at either 37°C or 75°C results in < 10% conversion to the nicked form as determined by agarose gel electrophoresis.