Datasheet for ABIN5519571

TransStart® TopTaqDNA Polymerase (with 2.5 mM dNTPs)

Overview

Quantity:	250 units
Application:	Polymerase Chain Reaction (PCR)

Product Details

Purpose:	TransStart® TopTaq DNA Polymerase is an engineered version of Taq DNA Polymerase combined with TransStart® technique.
Brand:	TransStart®
Specificity:	One binding protein binds to double-strand DNA template, preventing polymerase activity at room temperature. Other two binding proteins bind primers, preventing primer-dimer formation. Blocking proteins are released from primers and templates during the initial denaturation. This double blocking method has higher efficiency than antibody based, or chemically modified hot start PCR.
Characteristics:	- Compared with TransStart® Taq DNA Polymerase, TransStart® TopTaq DNA Polymerase has higher amplification efficiency, specificity and sensitivity. - TransStart® TopTaq DNA Polymerase offers 18-fold fidelity as compared to EasyTaq® DNA Polymerase. - The specificity is higher than antibody based or chemically modified hot start DNA polymerases. - Template-independent "A" can be generated at the 3' end of the PCR product. PCR products can be directly cloned into pEASY®-T vectors. - Reduced nonspecific amplification and primer dimer formation. - Different from Taq antibody, no risk of contamination from mammalian DNA. - Different from chemical modification, long denaturing step is not needed. - Amplification of genomic DNA fragment up to 15 kb.
Components:	DNA Polymerase, 10X Taq Buffer, 2.5 mM dNTPs, 10X GC Enhancer, 6X DNA Loading Buffer
Unit Definition:	One unit of TransStart® TopTaq DNA Polymerase incorporates 10 nmol of deoxyribonucleotide

Product Details

	into acid-precipitable material in 30 minutes at 74°C.

Application Details

Application Notes:	Complex templates, GC/AT-rich templates, Multiplex PCR, High yield PCR
Comment:	TransStart® TopTaq DNA Polymerase has passed the following quality control assays: functional absence of double- and single-strand endonuclease activity, >99% homogeneous measured by SDS-PAGE. Each batch of TransStart® TopTaq DNA Polymerase has been assayed for amplification efficiency to amplify p53 gene from 10 ng of human genomic DNA.
Restrictions:	For Research Use only

Handling

Buffer:	Storage Buffer:20 mM Tris-HCl (pH 8.0), 0.1 mM EDTA, 1 mM DTT, 100 mM KCl, 50 % glycerol, stabilizers. 10xTransStart® TopTaq Buffer with 20 mM MgSO4: 500 mM Tris-HCl (pH 9.0), 200 mM (NH4)2 SO4, 20 mM MgSO4, others
Storage:	-20 °C
Storage Comment:	at -20°C for two years
Expiry Date:	24 months

Publications

Product cited in:	Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (1991)