Datasheet for ABIN5519557

TransStart® Taq DNA Polymerase (with 2.5 mM dNTPs)

Overview

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

Product Details

Purpose:	TransStart® Taq DNA Polymerase is a hot start Taq DNA polymerase containing Taq DNA polymerase and two proprietary DNA binding proteins.
Brand:	TransStart®
Specificity:	At room temperature, one binding protein binds to double-strand DNA template and another binding protein binds to primer. These unique formulations effectively neutralize the DNA polymerase activity at room temperature. Blocking proteins are released from templates and primers during the initial denaturation. This double blocking method has higher efficiency than antibody based, or chemically modified hot start PCR.
Characteristics:	- TransStart® Taq DNA Polymerase offers 18-fold fidelity as compared to EasyTaq® DNA Polymerase. - Extension rate is about 1-2 kb/min. - 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® Taq DNA Polymerase incorporates 10 nmol of deoxyribonucleotide 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® Taq 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® Taq 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® Taq Buffer with 20 mM MgSO4: 500 mM Tris-HCl (pH 9.0), 200 mM (NH4)2SO4, 20 mM MgSO4, 10 % glycerol, 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)