

TransStart® KD Plus DNA Polymerase

Cat. No. AP301

Store at: -20°C for two years

Concentration: 1 unit/μl

Description:

TransStart® KD Plus DNA Polymerase is a genetically modified high fidelity DNA polymerase. This enzyme provides higher amplification capability than traditional *Pfu* DNA polymerase and fast amplification speed equal to *Taq* DNA polymerase (1 kb/min). Due to strong 3'-5' exonuclease activity, this enzyme offers 108-fold fidelity as compared to *EasyTaq*® DNA Polymerase.

Highlights

- PCR products can be directly cloned into *pEASY*®-Blunt vectors.
- Amplification of genomic DNA fragment up to 15 kb.
- Amplification of plasmid DNA fragment up to 20 kb.

Applications

- Fast, high specificity amplification
- High fidelity, high yield amplification

Storage Buffer

50 mM Tris-Cl (pH 8.0), 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, Stabilizers, 50% glycerol

5×TransStart® KD Plus Buffer with 5 mM MgSO₄

100 mM Tris-Cl (pH 9.2), 50 mM (NH₄)₂SO₄, 200 mM KCl, 5 mM MgSO₄, 10% glycerol, other

Kit Content

Component	AP301-01/11	AP301-02/12	AP301-03/13
TransStart® KD Plus DNA Polymerase	100 U×1	200 U×1	200 U×6
5×TransStart® KD Plus Buffer	1.2 ml×1	1.2 ml ×2	1.2 ml ×12
2.5 mM dNTPs	- / 500 μl×1	- / 1 ml ×1	- / 1 ml ×6
50 mM MgSO ₄	200 μl×1	400 μl ×1	1 ml ×1
6×DNA Loading Buffer	500 μl×1	1 ml ×1	1 ml ×2

Reaction Components

Component	Volume	Final Concentration
Template	Variable	as required
Forward Primer (10 μM)	1 μl	0.2 μM
Reverse Primer (10 μM)	1 μl	0.2 μM
5×TransStart® KD Plus Buffer	10 μl	1×
2.5 mM dNTPs	4 μl	0.2 mM
TransStart® KD Plus DNA Polymerase	1 μl	1 unit
Nuclease-free Water	Variable	-
Total volume	50 μl	-

Thermal cycling conditions

94°C	2-5 min	} 30-35 cycles
94°C	30 sec	
50-60°C	30 sec	
68°C	1 kb/min	
68°C	5-10 min	

FOR RESEARCH USE ONLY