2×*TransStart*® *FastPfu* PCR SuperMix

Please read the datasheet carefully prior to use.

Cat. No. AS221

Storage: at -20°C for two years

Description

TransStart® *FastPfu* PCR SuperMix is a ready-to-use mixture of *TransStart*® *FastPfu* DNA polymerase, dNTPs, and optimized buffer, featuring high amplification efficiency, fast amplification speed, high fidelity and high specificity. The SuperMix is provided at 2× concentration and can be used at 1× concentration by adding template, primers and H_2O for amplification. The amplified product of 2×*TransStart*® *FastPfu* PCR SuperMix is blunt-ended and can be cloned directly into pEASY®-Blunt series of vectors. It can also be directly loaded on agarose gel for electrophoresis. If it is used for cloning, it needs to be purified to remove the dye.

Its PCR product is not suitable for polyacrylamide gel electrophoresis.

- Reduce PCR operation time.
- Avoid contamination caused by the multi-step operation.
- *TransStart*® *FastPfu* PCR SuperMix offers 54-fold fidelity as compared to *EasyTaq*® DNA Polymerase.
- Amplification of genomic DNA fragment up to 15 kb.
- Amplification of plasmid DNA fragment up to 20 kb.

Features

Fast, high fidelity, high specificity, good stability

Applications

- High fidelity PCR
- Site-directed mutagenesis
- Blunt end cloning
- Complex templates
- Amplification of templates with high GC/AT content
- Long fragment amplification

Kit Contents

Component	AS221-01/11	AS221-02/12
2×*TransStart*® *FastPfu* PCR SuperMix (-dye)/ (+dye)	1 ml	5×1 ml
Nuclease-free Water	1 ml	5 ml

Reaction Components (50 µl reaction volumes)

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
2×*TransStart*® *FastPfu* PCR SuperMix	25 µl	1×
Nuclease-free Water	Variable	-
Total volume	50 µl	-

Optimized parameters (50 µl reaction volumes)

Template	Input
Genomic DNA	10-500 ng
Plasmid DNA	1-30 ng
cDNA	1-2 µl cDNA from RT reaction (50-500 ng RNA for RT reaction)

PCR

Number of Cycles	Temperature	Time
1 cycle	95°C	2 min
30-35 cycles	95°C	20 sec
	Tm-5°C	20 sec
	72°C	4 kb/min
1 cycle	72°C	5 min

Note

• Thoroughly thaw and mix when using

• For GC-rich templates, the recommended denaturation temperature is 98°C