2×*TransStart*® *FastPfu* PCR SuperMix

Please read the datasheet carefully prior to use.

Cat. No. AS221

Version No. Version 3.0

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. The amplified product of 2×*TransStart*® FastPfu PCR SuperMix (+dye) can be analyzed by electrophoresis directly, and need to be purified to remove dye when applied in cloning.

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

Recommended PCR system and conditions (taking 50 μl reaction system as an example)

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

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Service telephone +86-10-57815020
Service email complaints@transgen.com