

2×*TransStart*[®] *FastPfu Fly* PCR SuperMix

Please read the datasheet carefully prior to use.

Cat. No. AS231

Version No. Version 6.0

Storage at -18°C or below for two years

Description

This product contains *TransStart*[®] FastPfu Fly DNA Polymerase, dNTPs and optimized reaction buffer at a concentration of 2×. It has the features of high amplification efficiency, fast amplification speed (≤ 5 kb fragments can achieve 12 kb/min extreme amplification, > 5 kb fragments can achieve 6 kb/min high-speed amplification), ultra-high fidelity and high specificity. The SuperMix is provided at 2× concentration and can be used at 1× concentration by adding template, primers and Nuclease-free Water for amplification. The amplified product of 2×*TransStart*[®] FastPfu Fly PCR SuperMix (-dye) can be cloned directly into *pEASY*[®]-Blunt series of vectors. The amplified product of 2×*TransStart*[®] FastPfu Fly PCR SuperMix (+dye) can be analyzed by electrophoresis directly, and need to be purified to remove dye when applied in cloning.

- Reduce PCR operation time.
- Avoid contamination caused by multi-step operation.
- *TransStart*[®] *FastPfu* Fly PCR SuperMix offers 108-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, ultra-high fidelity, high specificity, good stability.

Applications

- Ultra high fidelity PCR
- Site-directed mutagenesis
- Blunt end cloning
- Complex templates
- GC/AT-rich templates
- Long fragment amplification

Kit Contents

Component	AS231-01/11	AS231-02/12
2× <i>TransStart</i> [®] <i>FastPfu</i> Fly 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× <i>TransStart</i> [®] <i>FastPfu</i> Fly PCR SuperMix	25 µl	1×
Nuclease-free Water	Variable	-
Total volume	50 µl	-



PCR

Number of Cycles	Temperature	Time
1 cycle	98°C	1 min
30-35 cycles	98°C	10 sec
	T _m -5°C	5 sec
	72°C	6 or 12 kb/min*
1 cycle	72°C	1 min

* For fragments of 5 kb and below, select 12 kb/min; for fragments above 5 kb, select 6 kb/min.

* The final concentration of primers is preferably 0.2 μ M, and can be optimized within the range of 0.2 μ M to 0.4 μ M to improve amplification yield.

Notes

- Completely thaw the contents in the tube and mix well before use.

For research use only, not for clinical diagnosis.

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