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

Please read the datasheet carefully prior to use.

Cat. No. AS231

Version No. Version 6.1

Storage at -18℃ 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 2× *TransStart*® *FastPfu* Fly PCR SuperMix (+dye) produces dark blue amplification products with clear tracking, allowing direct gel loading; however, the dye needs to be removed by purification 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×*TransStart*® *FastPfu* 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×*TransStart*® *FastPfu* Fly PCR SuperMix	25 μl	1×
Nuclease-free Water	Variable	-
Total volume	50 μl	-

PCR

Number of Cycles	Temperature	Time
1 cycle	98℃	1 min
30-35 cycles	98℃	10 sec
	Tm-5℃	5 sec
	72℃	6 or 12 kb/min*
1 cycle	72℃	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 μM, and can be optimized within the range of 0.2 μM to 0.4 μM to improve amplification yield.

Notes

• Completely thaw the contents in the tube and mix well before use.
• To improve the amplification efficiency and specificity of the product, the extension rate can be reduced to 2-4 kb/min for optimization.

For research use only, not for clinical diagnosis.
Version number: V6.1-202604
Service telephone +86-10-57815020
Service email custserv@transgenbiotech.com