GensCut XbaI

5'…T↓CTAGA…3'
3'…AGATC↑T…5'

Cat. No.

GSR043

Composition

Contents	Amount(500 rxns)
GensCut XbaI	500 μL
10×GensCut Buffer	3×1.0 mL
10×GensCut Color Buffer	3×1.0 mL

Storage Condition

Store at -20°C for 24 months.

Introduction

Genscut fast endonuclease is a restriction endonuclease obtained by genetic engineering recombination. It can accurately cut plasmid DNA, PCR products or genomic DNA within 5~15 minutes.

Important Notes

1. It is suggested to purify PCR products before enzyme digestion.
2. The system did not show asterisk activity after 3 h incubation, and asterisk activity may appear after delay.
3. The effect of enzyme digestion is affected by Dam methylation (the sequence may overlap and the cleavage is blocked).
4. The total volume of all endoenzymes shall not exceed 1/10 of the total reaction system.
5. The inactivation condition was 80°C for 20 min.

Quality Control Data

1. Functional activity test: under the optimal reaction temperature, 1 μL enzyme can completely digest 1 μg λDNA (Dam$^-$/HindIII digest) within 15min at 20 μL reaction system.

2. Ligation-Recutting test: after overdigestion with this enzyme, the DNA fragments could be ligated with T4 DNA ligase and recut with this enzyme.

3. Overdigestion test: nonspecific nuclease activity was not detected after 1 μg of DNA and 1 μL of enzyme were digestioned for 4 h under appropriate conditions, as assessed by agarose gel electrophoresis.

Protocol

Contents	Plasmid DNA	PCR products	Genomic DNA
ddH_2O	15 μL	16 μL	30 μL
10×GensCut Buffer/ 10× GensCut Color Buffer	2 μL	3 μL	5 μL
Substrate DNA	2 μL(~1 μg)	10 μL(~0.2 μg)	10 μL(5 μg)
GensCut XbaI	1 μL	1 μL	5 μL
Total	20 μL	30 μL	50 μL
Mix gently and centrifuge instantaneously			
37°C reaction	15 min	15~30 min	30~60 min
80°C reaction 20 min for inactivation			

Double or multiple enzyme digestion

1) The dosage of each endonuclease was 1 μL, and appropriately expand the reaction system as needed。

2) The total volume of endonuclease shall not exceed 1/10 of the total reaction system。

3) If the optimal reaction temperature of endonuclease is different, the enzyme with the lowest temperature shall be used to start the reaction, and then the enzyme with the higher temperature shall be added for the reaction.

Expanded reaction system(suitable for plasmids)

Contents	20 μL	20 μL	30 μL	40 μL	50 μL
DNA	1 μg	2 μg	3 μg	4 μg	5 μg
GensCut XbaI	1 μL	2 μL	2 μL	2 μL	2 μL
10×GensCut Buffer/ 10×GensCut Color Buffer	2 μL	2 μL	3 μL	4 μL	5 μL
Total	20 μL	20 μL	30 μL	40 μL	50 μL