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SapI

Catalog #SAP-SE101

Product Component	Sizes
SapI (10U/μL)	200U, 1000U, 10kU
10X Cut Reaction Buffer	160μL, 800μL, 8mL

Storage/Transportation Condition Store at -20°C ± 5°C for up to 24 months. Avoid repeated freeze/thaw cycles. Transport on dry ice.
Form Liquid
Source *E.coli*
Storage Buffer 10 mM Tris-HCl, 300 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 500 μg/ml HSA, 50% Glycerol, pH 7.4
10X Cut Reaction Buffer (200 mM Tris-acetate, 500 mM Potassium Acetate, 100 mM Magnesium Acetate, 1 mg/mL Recombinant Albumin, pH 7.9)
Concentration 10U/μL
Unit Definition One unit is defined as the amount of enzyme required to digest 1 μg of λ DNA in 1 hour at 37°C in a total reaction volume of 50 μL.

Restriction Site
5’ ...GCTCTTC(N)1↓... 3’
3’ ...CGAGAAG(N)4↑... 5’

Product Description
SapI is a type IIS restriction enzyme that recognizes asymmetric DNA sequences and cleaves outside their recognition sequence. Recombinant Albumin was added to the 10X Cut Reaction Buffer for stability and consistency. Isoschizomers of SapI include BspQI, PciSI and LguI.

Quality Statement
This product is GMP-Ready, indicating that it is currently manufactured at industrial-grade and can be moved to GMP-Grade manufacturing standards as necessary.

Applications
- Molecular Cloning
- Restriction site mapping
- Genotyping
- SNP

Recommended Protocol for Digestion
1. Make the reaction mixture according to the table below:

Reagent	Quantity
DNA	1 μg
10X Cut Reaction Buffer	5 μL
SapI (10U/μL)	1 μL*
Nuclease-free H_2O	Up to 50 μL

*Add SapI last. It is recommended that the volume of SapI should not exceed 10% of the reaction volume as high glycerol concentration (>5% v/v) may cause star activity.

2. Mix gently and incubate at 37 °C for 15-30 minutes.
3. Heat inactivation at 65 °C for 20 minutes to stop the reaction.

Notes
1. SapI is not sensitive to *dam*, *dcm* or CpG methylation.
2. It is recommended to purify DNA sample before cleavage if there is contamination of phenol, chloroform, alcohol, EDTA or detergents which may interfere with restriction enzyme activity.
3. For research use only.