

# SfaN I

GCATC(5/9)

AccuCut™ Restriction Endonuclease

- **Cat. No.** E-2001 50 Units  
E-2002 250 Units

- **Lot No. :** 01D21451H8A3

- **Supplied with Enzyme**

<b>10X AccuCut™Red Buffer</b>	<b>: 1 mL</b>
500 mM	pH 7.6 Tris-HCl
100 mM	MgCl <sub>2</sub>
1 M	NaCl
10 mM	DTT
<b>1X Dilution Buffer</b>	<b>: 1 mL</b>
10 mM	pH 7.6 Tris-HCl
50 mM	KCl
0.1 mM	EDTA
1 mM	DTT
200 μg/mL	Acetylated BSA
50%	Glycerol

- **Store at -20 °C.**

- **Unit definition :** One unit of restriction endonuclease activity is defined as the amount of enzyme required to completely digest 1 μg of substrate DNA in a total reaction volume of 50 μL in one hour using the AccuCut™ buffer provided. Incubations are performed in 1.5 mL tubes at the appropriate incubation temperature as indicated in the Product Profile.

- **Isoschizomer :** None.

- **Neoschizomer :** Unfound

- **Reactivity on methylated substrate DNA:** Not blocked by GCAT<sup>m</sup>C.

- **Ref)** 1.Schildkraut, I., Greenough, L., Unpublished observations.  
2.Sciaky, D., Roberts, R.J., Unpublished observations. .

- **Source :** *Streptococcus faecalis N.*

- **Concentration :** 2 Units/ μ L

- **Reaction Condition**

- 10X AccuCut™ Red Buffer
- Incubate at 37 °C .

- **Storage Buffer**

- |       |                   |
|-------|-------------------|
| 20 mM | pH 7.5, Tris-HCl  |
| 50 mM | KCl               |
| 1 mM  | EDTA              |
| 10 mM | 2-mercaptoethanol |
| 50%   | Glycerol          |

- **Heat inactivation :** 65°C for 20 minutes.

## Quality Control

- **Overdigestion Assay :**

No nonspecific activity was detected after incubation of 1 μg of λ DNA with 50 units of SfaN I for 15 hours.

\* Conditions of low ionic strength, high enzyme concentration, glycerol concentration >5%, or pH >8.0 may result in star activity.

- **Nuclease Contamination Assay :**

No altered pattern was detected after incubation of 1 μg of substrate DNA with SfaN I in 50 μL reaction volume with the supplied AccuCut™ buffer overnight.

- **Ligation and Recutting Assay :**

This assay is used to test for exonuclease activity that would degrade the termini of restriction fragments, resulting in inhibition of ligation and of subsequent digestion of ligated fragments. After 40-fold overdigestion with SfaN I, 95% of the DNA fragments can be ligated and recut with SfaN I.