

Sfr274 I

C[^]TCGAG
AccuCut™ Restriction Endonuclease

• Cat. No. E-2031 3000 Units

E-2032 15000 Units

• Lot No. : 02I131491H8A3

• Supplied with Enzyme

10X AccuCut™ green Buffer : 1 mL

100 mM pH 7.6 Tris-HCl

100 mM MgCl₂

10 mM DTT

1X Dilution Buffer : 1 mL

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** : *Abr* I, *Blu* I, *Ccr* I, *Mav* I, *Pae*R7 I, *Pan* I, *Sla* I, *Xho* I, *Xpa* I.

• **Neoschizomer** : Unfound

• **Reactivity on methylated substrate DNA**:
Unidentified

Ref) 1. Puchkova, L.I., Krivopalova, G.N., Andreeva, I.S., Selina, A.V., Serov, G.D., Rechkunova, N.I., Degtyarev, S.Kh., (1990) *Izv. Sib. Otd. Akad. Nauk SSSR*, vol. 1, pp. 32-34..

• **Source** : *Streptomyces fradiae* 274.

• **Concentration** : 30 Units/µL

• Reaction Condition

- 10X AccuCut™ green Buffer

- Incubate at 50 °C.

• Storage Buffer

20 mM pH 7.5, Tris-HCl

50 mM KCl

1 mM EDTA

10 mM 2-mercaptoethanol

50% Glycerol

• **Heat inactivation** : No.

Quality Control

• Overdigestion Assay :

No nonspecific activity was detected after incubation of 1 µg of λ DNA with 50 units of *Sfr*274 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 *Sfr*274 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 *Sfr*274 I, 95% of the DNA fragments can be ligated and recut with *Sfr*274 I.