Restriction Endonuclease

SibEnzyme®

Acu I

Recognition Sequence: CTGAAG(N)$_{16}$↓
GACTTC(N)$_{14}$↑

S **E451**
50 units
1,000 u/ml

Lot: 8
Exp: 09/19
Store at -20C

SE-Buffers	B	G	O	W	Y	ROSE
%Activity	25-50	50-75	50-75	75-100	100	50

37°C | 65°C | Y | λ | R | SAM

For more details scan the code

Ph/F +7(383)333-6853
info@sibenzyme.com
www.sibenzyme.com

CERTIFICATE OF ANALYSIS

Source: An *E.coli* strain that carries the cloned Acu I gene from *Acinetobacter calcoaceticus* SRW4.

Supplied in:
10 mM Tris-HCl (pH 7.5), 100 mM NaCl, 0.1 mM EDTA, 200 µg/ml BSA, 1 mM DTT, 50% glycerol.

Reaction Conditions:
1x SE-Buffer Y, BSA (100 µg/ml), SAM (32µM).
Incubate at 37° C.

1X SE-Buffer Y (pH 7.9@ 25° C):
33 mM Tris-Ac 66 mM KAc
10 mM MgAc 1 mM DTT

Heat Inactivation:
Enzyme is inactivated by incubation at 65° C for 20 minutes.

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.
To obtain 100% activity, BSA should be added to the 1x reaction mix to a final concentration of 100 µg/ml.

Quality Control Assays
Ligation: After 2-fold overdigestion with enzyme about 80% of the DNA fragments can be ligated. Of these, 80% can be recut.

16-Hour Incubation: A 50 µl reaction containing 1 µg of DNA and 1 unit of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour.

Oligonucleotide Assay: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 1 unit of restriction endonuclease for 3 hours.

Enzyme Properties
When using a buffer other than the optimal (supplied) SE-Buffer, it may be necessary to add more enzyme to achieve complete digestion.

Reagents Supplied with Enzyme:
10X SE-Buffer Y, BSA (10 mg/ml), SAM (32mM).