Restriction Endonuclease

SibEnzyme®

Acs I

Recognition Sequence:

R↓AATTY
YTTAA↑R

S

E013
500 units
10,000 u/ml

Lot:
Exp:
Store at -20°C

SE-Buffers	B	G	O	W	Y	ROSE
%Activity	25-50	50-75	50-75	100	10-25	100

50°C | 80°C | W | λ | BSA

For more details scen the code

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CERTIFICATE OF ANALYSIS

Source: *Arthrobacter citreus.*

Supplied in:
20 mM Tris-HCl (pH 7.5), 50 mM KCl, 0.1 mM EDTA, 10 mM 2-mercaptoethanol, 50% glycerol.

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

1X SE-Buffer W (pH 8.5 @ 25° C):
10 mM Tris-HCl 100 mM NaCl
10 mM $MgCl_2$ 1 mM DTT

Heat Inactivation:
Enzyme is inactivated by incubation at 80°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 50° 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 10-fold overdigestion with Acs I, >95% of the DNA fragments can be ligated with T4 DNA Ligase and recut.

16-Hour Incubation:A 50 µl reaction containing 1 µg of DNA and 20 Units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour.
No using BSA for long incubation.

Oligonucleotide Assay: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 10 units 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 enzymes to achieve complete digestion.

Reagents Supplied with Enzyme:
10X SE Buffer W, BSA (10 mg/ml).