Restriction Endonuclease

SibEnzyme®

Sma I

Recognition Sequence:

CCC↓GGG
GGG↑CCC

XS

E177m

500 units

20,000 u/ml

Lot:

Exp:

Store at -20C

SE-Buffers	B	G	O	W	Y	ROSE
%Activity	0-10	0-10	0-10	0-10	100	50

25°C | 65°C | Y | λ/HindIII | RR | minimal

For more details scen the code

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CERTIFICATE OF ANALYSIS

Source: An *E.coli* strain that carries the cloned Sma I gene from *Serratia marcescens*.

Supplied in:
10 mM Tris-HCl (pH 7.6), 50 mM NaCl, 0.1 mM EDTA, 200 µg/ml BSA, 1 mM DTT, 50% glycerol.

Reaction Conditions:
1x SE-Buffer Y. Incubate at 25° 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 of the enzyme is the amount required to hydrolyze 1 µg of λ DNA (Hind III- digest) in 1 hour at 25° C in a total reaction volume of 50 µl.

Quality Control Assays
Ligation : After 20-fold overdigestion with Sma I, approximately 90% of the DNA fragments can be ligated with T4 DNA Ligase and recut. In the presence of 10 % PEG ligation is better.

16-Hour Incubation: A 50 µl reaction containing in 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.

Oligonucleotide Assay: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 20 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 Y.