Restriction Endonuclease

SibEnzyme®

Sph I

Recognition Sequence:

GCATG↓C
C↑GTACG

S

E129

500 units

5,000 u/ml

Lot:

Exp:

Store at -20C

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

37°C | 65°C | Y | λ | RR | BSA

For more details scen the code

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CERTIFICATE OF ANALYSIS

Source: *An E.coli strain that carries the cloned Sph I gene from Streptomyces phaeochromogenes.*

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

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

1X SE-Buffer G (pH 7.6 @ 25° C):
10 mM Tris-HCl 50 mM NaCl
10 mM $MgCl_2$ 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 Lambda 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 10-fold overdigestion with SphI I, > 90% of the DNA fragments can be ligated and recut.

16-Hour Incubation: A 50 µl reaction containing 1 µg of DNA and 10 Units of enzyme incubated for 16 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour.
Do not use BSA for long incubation.

Oligonucleotide Assay: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 5 units of restriction endonuclease for 3 hours.
Sph I enzyme preparation has a light-yellow color.

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 G, BSA (10mg/ml).