Restriction Endonuclease

SibEnzyme®

Apa I

Recognition Sequence:

GGGCC↓C
C↑CGGG

S

E019

5,000 units

50,000 u/ml

Lot:

Exp:

Store at -20°C

SE-Buffers	B	G	O	W	Y	ROSE
%Activity	50-75	25-50	0-10	0-10	100	50

37°C | 65°C | Y | λ/BamHI | RR | Dcm | BSA

For more details scen the code

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CERTIFICATE OF ANALYSIS

Source: *An E.coli strain that carries the cloned Apa I gene from Acetobacter pasteurianus.*

Supplied in:
10 mM Tris-HCl (pH 7.5), 200 mM NaCl, 0.1 mM EDTA, 7 mM 2-mercaptoethanol, 100 µg/ml BSA, 50% glycerol.

Reaction Conditions:
1x SE-Buffer Y, BSA (100 µg/ml). 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/BamHI 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 50-fold overdigestion with Apa I, 90% 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 100 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 50 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, BSA (10mg/ml).

Blocked by overlapping Dcm methylation (C^{m}CWGG):
GGGCCCWGG.