Restriction Endonuclease

SibEnzyme®

BstAF I

Recognition Sequence:

C↓TTAAG
GAATT↑C

S

E135

1,000 units
20,000 u/ml

Lot:
Exp:
Store at -20°C

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

55°C | 80°C | W | λ | BSA

For more details scen the code

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CERTIFICATE OF ANALYSIS

Source: *Bacillus stearothermophilus AF.*

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

Reaction Conditions:
1x SE-Buffer W, BSA (100 µg/ml). Incubate at 55° 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 55° 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 5-fold overdigestion with BstAF I, ~40% of the DNA fragments can be ligated with T4 DNA Ligase and 95% of these can be recut.
In the presence of 10% PEG ligation is better.

16-Hour Incubation: A 50 µl reaction containing 1 µg of DNA and 40 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 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 W, BSA (10 mg/ml).