Restriction Endonuclease

SibEnzyme®

Bmt I

Recognition Sequence: GCTAG↓C
C↑GATCG

XS

E457m

200 units

20,000 u/ml

Lot:

Exp:

Store at -20C

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

37°C 65°C W λ/HindIII RR

For more details scen the code

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CERTIFICATE OF ANALYSIS

Source: *An E.coli strain that carries the cloned Bmt I gene from Bacillus megaterium S2.*

Supplied in:
10 mM Tris-HCl (pH 7.5), 200 mM NaCl, 0.1 mM EDTA, 1 mM DTT,200 µg/ml BSA, 50% glycerol.

Reaction Conditions:
1X SE-Buffer W. 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 65°C for 20 minutes.

Unit Definition:One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA/HindIII in 1 hour at 37° C in a total reaction volume of 50 µl.

Quality Control Assays
Ligation:After 20-fold overdigestion with Bmt I, ~95% of the DNA fragments can be ligated 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.

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.

Bmt I is an isoschizomer of Nhe I.

The minimum number of units that resulted in complete digestion of 1 µg of substrate DNA in 16 hours is 0.13. BmtI cleaves linear plasmid DNA at a rate 5 times higher than supercoiled plasmid DNA.