Restriction Endonuclease

Bmu I

E487

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100 u **Lot: 3**
500 u/ml **Store at -20°C**

Recognition Sequence:

5'… ACTGGG$(N)_5$↓…3'
3'… TGACCC$(N)_4$↑…5'

Sourse: ***Bacillus megaterium S2***

Supplied in: 10 mM Tris-HCl (pH 7.5);
250 mM NaCl; 0.1 mM EDTA;
7 mM 2-mercaptoethanol;
50% glycerol.

Reaction Conditions:
1×SEBuffer **Y**
Incubate at **37°C.**

1×SEBuffer Y (pH 7.9 @ 25°C)
33 mM Tris-Ac 66 mM KAc
10 mM MgAc 1 mM DTT

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

Note: Enzyme is active in presence of EDTA.

Quality Control Assays

Ligation: After 2-fold overdigestion with Bmu I ~75% of the λ DNA fragments can be ligated and 95% of these can be recut.

Overnight digest with BmuI is not recommended.

A 50 μl reaction containing 1 μg of λ DNA and 0.5 units of enzyme incubated for 4 hours resulted in the same pattern of DNA bands as a reaction incubated for 1 hour.

Oligonucleotide Assay:
No detectable degradation of a single- and double-stranded oligonucleotide was observed after incubation with 0.5 units of enzyme for 3 hours.

Enzyme Properties

Activity in SEBuffers:
SEBuffer B 75-100%
SEBuffer G 75--100%
SEBuffer O 25-50%
SEBuffer W 10-25%
SEBuffer Y **100%**
SEBuffer ROSE 25%
When using a buffer other than the optimal (suppied) SEBuffer, it may be necessary to add more enzyme to achieve complete digestion.

Heat Inactivation:
Yes (65°C for 20 minutes)
Reagents Supplied with Enzyme:
10×SEBuffer Y

CERTIFICATE OF ANALYSIS