#### Restriction Endonuclease

# Bgl II

Recognition Sequence:						
xs	E027m 500 units 10,000 u/ml					

Lot:
Exp:
Store at -20C

SE-Buffers	В	G	0	W	Y	ROSE
%Activity	0-10	10-25	100	25-50	10-25	100





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TCTAG<sup>†</sup>A

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## **CERTIFICATE OF ANALYSIS**

<u>Source</u>: An *E.coli* strain that carries the cloned Bgl II gene from *Bacillus globigii*.

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

<u>Reaction Conditions:</u> 1x SE-Buffer O. Incubate at 37° C.

 1X SE-Buffer O (pH 7.6 @ 25° C):

 50 mM Tris-HCl
 100 mM NaCl

 10 mM MgCl<sub>2</sub>
 1 mM DTT

### Heat Inactivation:

Enzyme is not inactivated by incubation at  $65^\circ\,\text{C}$  for 20 minutes.

<u>Unit Definition</u>: One unit of the enzyme is the amount required to hydrolyze 1 µg of Lambda DNA in 1 hour at 37° C in a total reaction volume of 50 µl.

### **Quality Control Assays**

<u>Ligation</u>: After 20-fold overdigestion with Bgl II, approximately 90% of the DNA fragments can be ligated with T4 DNA Ligase and recut.

<u>16-Hour Incubation</u>: A 50  $\mu$ l reaction containing 1  $\mu$ g 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.

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.

<u>Note</u>: Not blocked by overlapping dam-methylation ( $G^{m}ATC$ ): A<u>GATC</u>T

Reagents Supplied with Enzyme: 10X SE-Buffer 0.

<u>Oligonucleotide Assay</u>: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 10 units of restriction endonuclease for 3 hours.