Restriction Endonuclease

SibEnzyme®

Bgl II

Recognition Sequence:

A↓GATCT
TCTAG↑A

L

E028T

5,000 units
10,000 u/ml

Lot: 48
Exp: 09/19
Store at -20C

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

37°C | No | O | λ | R | TURBO

For more details scan the code

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CERTIFICATE OF ANALYSIS

Description: Turbo Bgl II can be used for short time (10-15 min) DNA digestion as well as for standard reaction. The reaction can be performed using optimal or universal (ROSE) Buffer. Buffer ROSE is perfect for double digestion.

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

Supplied in:
10 mM Tris-HCl (pH 7.6), 50 mM NaCl, 0.1 mM EDTA, 200 µg/ml BSA, 1mM DTT, 50% glycerol.

Reaction Conditions:
1x SE-Buffer O or 1x SE-Buffer ROSE. Incubate at 37°C

1X SE-Buffer O (pH 7.6@ 25°C): 50 mM Tris-HCl, 100 mM NaCl, 10 mM $MgCl_2$, 1 mM DTT

Heat Inactivation:
Enzyme is not 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 in 1 hour at 37°C in a total reaction volume of 50 µl.

Quality Control Assays
Ligation: After 10-fold overdigestion with Bgl II, approximately 90% of the DNA fragments can be ligated with high-activity T4 DNA Ligase and recut.

16-Hour Incubation: A 50 µl reaction containing 1 µg 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.

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

Reagents Supplied with Enzyme:
10x SE-Buffer O, 10x SE-Buffer ROSE

Turbo DNA Digestion:

Applications:
-Fast DNA analysis
-Fast preparation of vectors for cloning
-Double digestion

Enzyme Properties:
1 µl of Turbo Bgl II cuts 1 µg of DNA in 1x SE-Buffer O or universal 1x SE-Buffer ROSE in 10-15 min (see the protocol below). Short time DNA digestion requires high quality purification of DNA sample. This enzyme can digest DNA at standard incubation time (1-16 hours) as well.

Turbo reaction protocol:
20 µl of the reaction volume:
Reaction Buffer (x10) - 2 µl
Plasmid DNA - 1-2 µl (up to 1 µg) or
PCR product - 5-10 µl (~0,2 µg)
Sterile water - up to 20 µl
+ 1 µl of Turbo Restriction Endonuclease
Incubate at 37°C for 10-15 min