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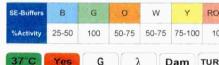
Bsa29 I

Restriction

Endonuclease

AT L CGAT Recognition Sequence: TAGC TTA

Exp: 05/20 1,000 units Store at -20C 20,000 u/ml SE-Buffers



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CERTIFICATE OF ANALYSIS Description: Turbo Bsa29 I can be used for short time

(5-10 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: Bacillus stearothermophilus 29

Supplied in: 10 mM Tris-HCl (pH 7.5), 250 mM NaCl. 0.1 mM EDTA, 7 mM 2-mercaptoethanol, 200 µg/ml BSA, 50% glycerol.

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

1 x SE-Buffer G (pH 7.6@ 25°): 10 mM Tris-HCL 50 mM NaCl 10 mM MgCl₂ 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 in 1 hour at 37°C in a total reaction volume of 50 µl. Quality Control Assays Ligation: After 20-fold overdigestion with Bsa29 I, >90% of the DNA fragments can be ligated with T4 DNA Ligase and recut. 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. 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. Reagents Supplied with Enzyme: 10 x SE-Buffer G, 10 x SE-Buffer ROSE. Blocked by overlapping dam-methylation(G^mATC):

GATCGATC. Blocked by CG methylation. Turbo DNA Digestion: Applications:

-Fast DNA analysis

-Fast preparation of vectors for cloning -Double digestion

Enzyme Properties:

1 µl of Turbo Bsa29 I cuts 1 µg of DNA in 1 x SE-Buffer G or universal 1 x SE-Buffer ROSE in 5-10 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:

PCR product

Reaction Buffer (x10) - 2 µl Plasmid DNA

- 1-2 μl (up to 1 μg) or

- 5-10 μl (~0,2 μg)

- up to 20 μl

Sterile water + 1 µl of Turbo Restriction Endonuclease Incubate at 37°C for 5-10 min.