Restriction Endonuclease

SibEnzyme®

Bsa29 I

Recognition Sequence:

AT↓CGAT
TAGC↑TA

L

E206T

5,000 units

20,000 u/ml

Lot: 20

Exp: 09/20

Store at -20°C

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

37°C	Yes	G	λ	Dam	TURBO

For more details scan the code

Ph/F +7(383)333-6853
info@sibenzyme.com
www.sibenzyme.com

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 $MgCl_2$ 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 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^{m}ATC):
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:
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 5-10 min.