Restriction Endonuclease

Bsa29 I

E205

1,000 units

20.000 u/ml

Recognition

Sequence:

For more details

scen the code

CERTIFICATE OF ANALYSIS

Source: Bacillus stearothermophilus 29.

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

<u>Reaction Conditions:</u> 1XSE-Buffer G, BSA (100 µg/ml). Incubate at 37° C.

 1X SE-Buffer G (pH 7.6 @ 25° C):

 10 mM Tris-HCl
 50 mM NaCl

 10 mM MgCl₂
 1 mM DTT

Heat Inactivation:

Enzyme is inactivated by incubation at $65^{\circ}\mathrm{C}$ for 20 minutes.

<u>Unit Definition</u>:One unit is defined as the amount of enzyme required to digest 1 μ g of Lambda DNA in 1 hour at 37° C in a total reaction volume of 50 μ l. To obtain 100% activity, BSA should be added to the 1x reaction mix to a final concentration of 100 μ g/ml.

Quality Control Assays

<u>Ligation</u>:After 20-fold overdigestion with Bsa29 I, > 90% of the DNA fragments can be ligated with T4 DNA Ligase and recut.

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

Do not use BSA for long incubation.

<u>Oligonucleotide Assay</u>:No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 20 units of restriction endonuclease for 3 hours.

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.

Reagents Supplied with Enzyme: 10X SE Buffer G, BSA (10mg/ml).

Blocked by overlapping Dam methylation (G^mATC): <u>GATCGATC.</u>

Blocked by CG methylation.

 SE-Buffers
 B
 G
 O
 W
 Y
 ROSE

 %Activity
 25-50
 100
 50-75
 50-75
 75-100
 100

 37°C
 65°C
 G
 λ
 Dam
 BSA

SibEnzyme®

ATICGAT

TAGCTTA

Lot:

Exp:

Store at -20°C

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