



## Bso31 I

Recognition Sequence:

S E285

200 u 5,000 u/ml  $GGTCTC(N)_1 \downarrow CCAGAG(N)_5 \uparrow$ 

Lot: Exp:

Store at -20°C

 SE-Buffers
 B
 G
 O
 W
 Y
 ROSE

 %Activity
 25-50
 75-100
 100
 75-100
 25-50
 40

55°C 80°C



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**BSA** 

## **CERTIFICATE OF ANALYSIS**

Source: Bacillus stearothermophilus 31.

## Supplied in:

 $\overline{10}$  mM Tris-HCl (pH 7.5), 100 mM NaCl, 0.1 mM EDTA, 7 mM 2-mercaptoethanol, 100 µg/ml BSA, 50% glycerol.

#### **Reaction Conditions:**

1X SE-Buffer O, BSA (100  $\mu g/ml).$  Incubate at  $\,55^{o}$  C.

## <u>1X SE-Buffer O (pH 7.6 @ 25° C)</u>:

50 mM Tris-HCl 100 mM NaCl 10 mM MgCl, 1 mM DTT

#### **Heat Inactivation:**

Enzyme is inactivated by incubation at 80°C for 20 minutes.

<u>Unit Definition</u>:One unit is defined as the amount of enzyme required to digest 1  $\mu$ g of T7 DNA in 1 hour at55° C in a total reaction volume of 50  $\mu$ l. To obtain 100% activity, BSA should be added to the 1 x reaction mix to a final concentration of 100  $\mu$ g/ml.

## Quality Control Assays

<u>Ligation</u>:After 5-fold overdigestion with Bso31 I, 90% of the DNA fragments can be ligated and 80% of these can be 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.

Do not use BSA for long incubation.

Oligonucleotide Assay: No detectable degradation of a single-stranded and double-stranded oligonucleotide was observed after incubation with 5 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 O. BSA (10mg/ml).

Not blocked by methylation GGTCT™C