



# Bst2U I

Recognition Sequence:

S E0

**E051**1,000 units
20,000 u/ml

GGW†CC CC↓WGG

Lot: Exp:

Store at -20°C

 SE-Buffers
 B
 G
 O
 W
 Y
 ROSE

 %Activity
 75-100
 100
 50-75
 50-75
 10-25
 50

60°C No



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**BSA** 

# **CERTIFICATE OF ANALYSIS**

Source: Bacillus stearothermophilus 2U.

### Supplied in:

10 mM Tris-HCl (pH 7.5), 200 mM NaCl, 0.1 mM EDTA, 7 mM 2-mercaptoethanol, 200  $\mu g/ml$  BSA, 50% glycerol.

#### **Reaction Conditions:**

1X SE-Buffer G, BSA (100  $\mu g/ml).$  Incubate at  $60^{\circ}$  C.

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

 $\begin{array}{ll} 10~\text{mM Tris-HCl} & 50~\text{mM NaCl} \\ 10~\text{mM MgCl}_2 & 1~\text{mM DTT} \end{array}$ 

# **Heat Inactivation:**

NO (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 Lambda DNA in 1 hour at60°C in a total reaction volume of 50  $\mu$ l. To obtain 100% activity, BSA should be added to the 1x reaction mix to a final concentration of 100  $\mu$ g/ml.

#### Quality Control Assays

 $\label{eq:Ligation} \begin{tabular}{ll} $\underline{$Ligation:} After 2-fold overdigestion with Bst2U I, < 5\% of the DNA fragments can be ligated. \end{tabular}$ 

 $\underline{16\text{-Hour Incubation:}} A 50~\mu l$  reaction containing 1  $\mu g$  of DNA and 20 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 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).

Not blocked by overlapping Dcm methylation (C $^{\text{m}}$ CWGG): CCWGG.