

# Sau96I



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R0165S 025121014101

## R0165S



1,000 units 5,000 U/ml Lot: 0251210

RECOMBINANT Store at -20°C Exp: 10/14

### Recognition Site:

5'... G<sup>▼</sup>G N C C ... 3'  
3'... C C N G<sup>▲</sup>G ... 5'

**Source:** An *E. coli* strain that carries the cloned Sau96I gene from *Staphylococcus aureus* PS96 (ATCC 49831)

Supplied in: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 0.1 mM EDTA, 1 mM dithiothreitol, 200 µg/ml BSA and 50% glycerol.

### Reagents Supplied with Enzyme:

10X NEBuffer 4.

### Reaction Conditions:

1X NEBuffer 4.  
Incubate at 37°C.

### 1X NEBuffer 4:

50 mM potassium acetate  
20 mM Tris-acetate  
10 mM magnesium acetate  
1 mM dithiothreitol  
pH 7.9 @ 25°C

### Unit Definition:

One unit is defined as the amount of enzyme required to digest 1 µg of λ DNA in 1 hour at 37°C in a total reaction volume of 50 µl.

**Diluent Compatibility:** Diluent Buffer A  
50 mM KCl, 10 mM Tris-HCl, 0.1 mM EDTA,  
1 mM dithiothreitol, 200 µg/ml BSA and  
50% glycerol (pH 7.4 @ 25°C)

### Quality Control Assays

**Ligation:** After 10-fold overdigestion with Sau96I, > 95% of the DNA fragments can be ligated with T4 DNA Ligase (at a 5' termini concentration of 1–2 µM) at 16°C. Of these ligated fragments, > 95% 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 with 1 unit of enzyme.

**Exonuclease Activity:** Incubation of 25 units of enzyme with 1 µg sonicated <sup>3</sup>H DNA (10<sup>5</sup> cpm/µg) for 4 hours at 37°C in 50 µl reaction buffer released < 0.2% radioactivity.

### Enzyme Properties

#### Activity in NEBuffers:

NEBuffer 1	50%
NEBuffer 2	100%
NEBuffer 3	100%
NEBuffer 4	100%

When using a buffer other than the optimal (supplied) NEBuffer, it may be necessary to add more enzyme to achieve complete digestion.

**Survival in a Reaction:** A minimum of 0.25 unit is required to digest 1 µg of substrate DNA in 16 hours.

**Heat Inactivation:** 80°C for 20 minutes.

**Notes:** Blocked by overlapping *dcm* methylation.

Cleavage of mammalian genomic DNA is blocked by overlapping CpG methylation.

#### Companion Products:

dam-/dcm- Competent <i>E. coli</i>	
#C2925H	20 transformation reactions
#C2925I	24 transformation reactions

CERTIFICATE OF ANALYSIS

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