Restriction Endonuclease

SibEnzyme®

# Smi I

**Recognition Sequence:** ATTT↓AAAT / TAAA↑TTTA

S

**E225**

1,000 units

20,000 u/ml

**Lot:**

**Exp:**

**Store at -20°C**

| SE-Buffers | B | G | O | W | Y | ROSE |
|---|---|---|---|---|---|---|
| %Activity | 25-50 | 25-50 | 100 | 75-100 | 25-50 | 10 |

37°C | 65°C | O | T7/SspI | BSA

For more details scen the code

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

# CERTIFICATE OF ANALYSIS

Source: *Streptococcus milleri S.*

Supplied in:
10 mM Tris-HCl (pH 7.5), 250 mM NaCl, 0.1 mM EDTA, 7 mM 2-mercaptoethanol, 100 µg/ml BSA, 50% glycerol.

Reaction Conditions:
1X SE-Buffer O, BSA (100 µg/ml). Incubate at 37° C.

1X SE-Buffer O (pH 7.6 @ 25° C):
50 mM Tris-HCl 100 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 T7 DNA/SspI in 1 hour at 37° C in a total reaction volume of 50 µl. To obtain 100% activity, BSA should be added to the 1 x reaction mix to a final concentration of 100 µg/ml.

Quality Control Assays
Ligation: After 20-fold overdigestion with Smi I, > 95% of the DNA fragments can be ligated by using of high concentration T4 DNA Ligase with 10% PEG and recut.

16-Hour Incubation: A 50 µl reaction containing 1 µg of T7 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.

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 O, BSA (10mg/ml).