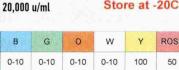


## 

## CCCTCCC GGG T CCC











10,000 units

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

www.sibenzyme.com

CERTIFICATE OF ANALYSIS Description: Turbo Sma I can be used for short time

double digestion.

Supplied in:

Reaction Conditions:

(10-15 min) DNA digestion as well as for standard reaction. The reaction can be performed using optimal or universal (ROSE) Buffer. Buffer ROSE is perfect for

Source: An E.coli strain that carries the cloned Sma I

10 mM Tris-HCl (pH 7.6), 50 mM NaCl, 0.1 mM EDTA,

200 ug/ml BSA, 1 mM DTT, 50% glycerol.

1x SE-Buffer Y or 1x SE-Buffer ROSE. Incubate at 25°C

1X SE-Buffer Y (pH 7.9@ 25°C): 33 mM Tris-Ac.

66 mM KAc, 10 mM MgAc, 1 mM DTT

gene from Serratia marcescens.

Enzyme is inactivated by incubation at 65°C for 20

approximately 90% of the DNA fragments can be ligated with high-activity T4 DNA Ligase and recut. 16-Hour Incubation: A 50 µl reaction containing 1 µg of DNA and 20 units of enzyme incubated for 16 hours

Quality Control Assays

50 μl.

resulted in the same pattern of DNA bands as a reaction incubated for 1 hour. Oligonucleotide Assay: No detectable degradation of a single-stranded and double-stranded oligonucleotide

was observed after incubation with 20 units of

Unit Definition: One unit is defined as the amount of

enzyme required to digest 1  $\mu$ g of  $\lambda$  DNA (Hind III-

Ligation: After 2-fold overdigestion with Sma I,

digest) in 1 hour at 25° C in a total reaction volume of

restriction endonuclease for 3 hours. Reagents Supplied with Enzyme: 10x SE-Buffer Y, 10x SE-Buffer ROSE

Applications: -Fast DNA analysis -Fast preparation of vectors for cloning

Turbo DNA Digestion:

-Double digestion **Enzyme Properties:** 

1 µl of Turbo Sma I cuts 1 µg of DNA in 1x SE-Buffer Y or universal 1x SE-Buffer ROSE in 10-15 min (see the protocol below). Short time DNA digestion requires high quality purification of DNA sample. This enzyme can digest DNA at standard incubation time (1-16 hours) as well.

Turbo reaction protocol: 20 µl of the reaction volume: Reaction Buffer (x10) - 2 µl DNA (including plasmid) - 1-2 μl (up to 1 μg) or PCR product (purified) - 2-5 µl (~0.2 µg) Sterile water - up to 20 ul + 1 µl of Turbo Restriction Endonuclease Incubate at 25°C for 10-15 min