

Restriction  
Endonuclease



# Hinf I



Recognition  
Sequence:

G↓ANTC  
CTNA↑G

**S** **E075T**  
2,000 units  
20,000 u/ml

Lot: 77  
Exp: 05/20  
Store at -20C

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

37°C 80°C O λ RE TURBO

## CERTIFICATE OF ANALYSIS

Description: Turbo Hinf I can be used for short time (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 double digestion.

Source: An *E.coli* strain that carries the cloned Hinf I gene from *Haemophilus influenzae*.

Supplied in:  
10 mM Tris-HCl (pH 7.6), 50 mM NaCl, 0.1 mM EDTA, 200 µg/ml BSA, 1 mM DTT, 50% glycerol.

Reaction Conditions:  
1x SE-Buffer O or 1x SE-Buffer ROSE. Incubate at 37°C

1X SE-Buffer O (pH 7.6@ 25°C): 50 mM Tris-HCl, 100 mM NaCl, 10 mM MgCl<sub>2</sub>, 1 mM DTT

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

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.

### Quality Control Assays

Ligation: After 20-fold overdigestion with Hinf I, 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 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 restriction endonuclease for 3 hours.

Reagents Supplied with Enzyme:  
10x SE-Buffer O, 10x SE-Buffer ROSE

### Turbo DNA Digestion:

#### Applications:

- Fast DNA analysis
- Fast preparation of vectors for cloning
- Double digestion

#### Enzyme Properties:

1 µl of Turbo Hinf I cuts 1 µg of DNA in 1x SE-Buffer O 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 µl  
+ 1 µl of Turbo Restriction Endonuclease  
Incubate at 37°C for 10-15 min

For more details  
scan the code



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