Restriction Endonuclease

SibEnzyme®

EcoR I

Recognition Sequence:

G↓AATTC
CTTAA↑G

L **E058T**
25,000 units
20,000 u/ml

Lot: 84
Exp: 09/20
Store at -20C

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

37°C | 65°C | EcoR I | λ | RE | TURBO

For more details scan the code

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

CERTIFICATE OF ANALYSIS

Description: Turbo EcoR 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 EcoR I gene from *Escherichia coli*.

Supplied in:
10 mM Tris-HCl (pH 7.5), 200 mM NaCl, 0.1 mM EDTA, 7 mM 2-mercaptoethanol, 200 µg/ml BSA, 50% glycerol.

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

1X SE-Buffer EcoR I (pH 7.6@ 25°C): 100 mM Tris-HCl, 50 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 λ DNA in 1 hour at 37°C in a total reaction volume of 50 µl.

Quality Control Assays
Ligation: After 40-fold overdigestion with EcoR 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 EcoR I, 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 EcoR I cuts 1 µg of DNA in 1x SE-Buffer EcoR I 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
Plasmid DNA - 1-2 µl (up to 1 µg) or
PCR product - 5-10 µl (~0,2 µg)
Sterile water - up to 20 µl
+ 1 µl of Turbo Restriction Endonuclease
Incubate at 37°C for 10-15 min