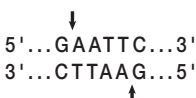


EcoR I



Product No : RE1260
Quantity : 2500u



Lot :
Expiry Date :
Concentration : 20u/μl
Supplied with : 1ml of 10X Buffer EcoR I
1ml of 10X Buffer UB
0.5ml Diluent Viva Buffer A
(BSA included in all Reaction Buffer)

Store at -20°C



info@vivantechnologies.com

Reaction Conditions:

Buffer EcoR I,

50mM Tris-HCl (pH 7.5 at 30°C), 10mM MgCl₂, 100mM NaCl, 0.02% triton X-100, and 0.1mg/ml BSA.

Incubate at 37°C.

Dilution: Viva Buffer A

10mM Tris-HCl (pH 7.4 at 25°C), 50mM KCl, 0.1mM EDTA, 1mM DTT, 200μg/ml BSA and 50% glycerol.

Thermal Inactivation: 65°C for 20 minutes

Storage Buffer:

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

Unit Definition:

1u is defined as the amount of enzyme that is required to digest 1μg of DNA in 1 hour at 37°C in 50μl of assay buffer.

Quality Control Assays:

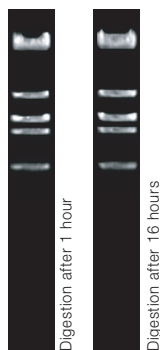
Ligation/ Recutting Assay:

After 20-fold overdigestion with **EcoR I**, more than 95% of the DNA fragments can be ligated and recut.

Overdigestion assay:

An unaltered banding pattern was observed after 1μg of DNA was digested with 40u of **EcoR I** for 16 hours at 37°C.

λ DNA
0.7% Agarose



Activity in Reaction Buffer

V1	V2	V3	V4	V5
50%	50%	100%	100%	50%

Buffer UB

0.5X	1.0X	1.5X	2.0X
50%	50%	75%	75%

* Buffer UB is provided for double digestion purpose.

NOTE:

- * High enzyme concentration may result in **Star Activity**
- * Overdigestion in Buffer V3 and V4 will cause **Star Activity**.
- * Total reaction volume dependent on experiment.
- * The amount of enzyme to be used is very much dependent on the DNA template.
- * For plasmid DNA, 5-10X more enzyme is required.

Example of Digestion Reaction

Enzyme : 1 unit
Lambda 0.3μg/μl : 3.33μl (1μg DNA)
10X Reaction Buffer : 5μl
Sterile Distilled Water : Up to 50μl

Product Use Limitation

This product is for research purposes and *in vitro* use only.