v i v a n t i s

RESTRICTION ENDONUCLEASE

Product Datasheet

*Eco*R V

5'...G A T A T C...3'
3'...C T A T A G...5'

Product No : RE1262
Quantity   : 1000u

Lot   :
Expiry Date :
Concentration : 20u/μl
Supplied with : 1ml of 10X Buffer *Eco*R V
               1ml of 10X Buffer UB
               0.5ml Diluent Viva buffer A
               (BSA included in all Reaction Buffer)
Store at -20°C

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Reaction Conditions:
Buffer *Eco*R V,
10mM Tris-HCl (pH8.5 at $30^{\circ}C$), 10mM $MgCl_2$, 100mM NaCl
and 100μg/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: None

Storage Buffer:
10mM Tris-HCl (pH7.5), 50mM NaCl, 0.1mM EDTA,
1mM DTT, 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.
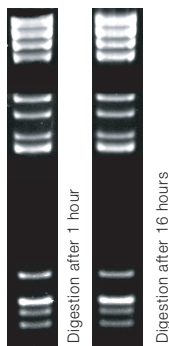
Quality Control Assays:

Ligation/ Recutting Assay:
After 20-fold overdigestion with ***Eco*R V**, 80% 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 ***Eco*R V** for 16 hours at
37°C.

λ DNA
1.0% Agarose

Digestion after 1 hour | Digestion after 16 hours

Activity in Reaction Buffer

V1	V2	V3	V4	V5
0%	0%	100%	75%	0%

Buffer UB

0.5X	1.0X	1.5X	2.0X
25%	75%	75%	0%

* Buffer UB is provided for double digestion purpose.

NOTE:

* High enzyme concentration may result in **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.

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