



## Storage Buffer

EcoRII is supplied in: 10 mM Tris-HCl (pH 7.4 at 25°C)  
100 mM KCl, 1 mM EDTA, 1 mM DTT, 0.2 mg/ml BSA and  
50% glycerol.

## Recommended Protocol for Digestion

- Add:

nuclease-free water	16 µl
10X Buffer O	2 µl
DNA (0.5-1 µg/µl)	1 µl
EcoRII	0.5-2 µl
- Mix gently and spin down for a few seconds.
- Incubate at 37°C for 1-16 hours.

The digestion reaction may be scaled either up or down.

## Recommended Protocol for Digestion of PCR Products Directly after Amplification

- Add:

PCR reaction mixture	10 µl (~0.1-0.5 µg of DNA)
nuclease-free water	18 µl
10X Buffer O	2 µl
EcoRII	1-2 µl
- Mix gently and spin down for a few seconds.
- Incubate at 37°C for 1-16 hours.

## Thermal Inactivation

EcoRII is inactivated by incubation at 80°C for 20 min.

## ENZYME PROPERTIES

### Enzyme Activity in Fermentas REase Buffers, %

B	G	O	R	Tango™	2X Tango™
20-50	50-100	100	50-100	20-50	50-100

### Methylation Effects on Digestion

Dam: never overlaps – no effect.  
Dcm: completely overlaps – blocked.  
CpG: never overlaps – no effect.  
EcoKI: never overlaps – no effect.  
EcoBI: never overlaps – no effect.

### Stability during Prolonged Incubation

A minimum of 0.1 units of the enzyme is required for complete digestion of 1 µg of lambda DNA in 16 hours at 37°C.

### Compatible Ends

BssKI – (↓CCWGG), PfoI – (T↓CCWGGGA), SexAI.

### Number of Recognition Sites in DNA

λ	ΦX174	pBR322	pUC57	pUC18/19	pTZ19R/U	M13mp18/19
70	2	6	5	5	5	7

### Note

For cleavage with EcoRII at least two copies of its recognition sequence are required.

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# QUALITY CONTROL ASSAY DATA

## Overdigestion Assay

No detectable change in the specific fragmentation pattern is observed after a 160-fold overdigestion with EcoRII (10 u/μg pBR322 DNA x 16 hours).

## Ligation/Recutting Assay

After a 50-fold overdigestion (3 u/μg DNA x 17 hours) with EcoRII, more than 90% of the digested DNA fragments can be ligated at a 5'-termini concentration of 0.63 μM. More than 90% of these sites can be recut.

## Labeled Oligonucleotide (LO) Assay

No detectable degradation of single-stranded or double-stranded labeled oligonucleotides occurred during incubation with 10 units of EcoRII for 4 hours.

Quality authorized by:  Jurgita Zilinskiene

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This product is developed, designed and sold exclusively *for research purposes and in vitro use only*. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

Please refer to [www.fermentas.com](http://www.fermentas.com) for Material Safety Data Sheet of the product.