

5'...G<sup>▼</sup>AATTC...3'  
 3'...CTTAA<sup>▲</sup>G...5'

Content:	Ref No.	250114S	color
EcoRI 10 U/μL		5000 units	blue
10x buffer EcoRI*		1x1 mL	red
10x buffer K		1x1 mL	yellow
Datasheet		1	--



Lambda DNA EcoRI digest, 0.7 % agarose

We recommend the use of buffer K as universal buffer (BSA included).

**Storage:** -20 °C

**Concentration:** 10 U/μL

**Source:** An *E. coli* strain that carries the cloned *ecoRI* gene from *E. coli* RY13.

#### Enzyme Properties:

**1x buffer EcoRI composition:** 100 mM Tris-HCl (pH 7.4 at 25 °C), 50 mM NaCl, 5 mM MgCl<sub>2</sub>, 0.025 % Triton X-100.

**General reaction mixture:**

10 U EcoRI	1 μL
10x buffer EcoRI* or K	2 μL
DNA substrate	<1 μg
Sterile ultrapure water	Up to 20 μL

**Incubate for 15 min at 37 °C**

**Heat inactivation:** 65 °C for 20 minutes.

**Methylation Sensitivity:**

- dam* methylation: Not sensitive
- dcm* methylation: Not sensitive
- CpG methylation: Impaired by overlapping

**Storage buffer:** 5 mM KPO<sub>4</sub>, (pH 7.4), 300 mM NaCl, 0.1 mM EDTA, 1 mM Dithiothreitol, 0.15 % Triton X-100, 200 μg/mL bovine serum albumin and 50 % glycerol. Store at -20 °C.

**Absence of contaminants:** 100 units of EcoRI do not produce any unspecific cleavage products after 16 hrs incubation with 1 μg of Lambda DNA at 37 °C. After 50-fold overdigestion with EcoRI greater than 98 % of the DNA fragments can be ligated and recut with this enzyme.

**Unit definition:** One unit is defined as the amount of enzyme required to produce a complete digest of 1 μg Lambda DNA (*dam*<sup>-</sup>) in 60 minutes in a total reaction volume of 0.05 mL under the assay conditions.

Frequency of Cutting:	λ	Ad-2	Φx174	pUC18	M13mp18	pBR322
	5	5	0	1	1	1
Percent Activity in BIORON Buffers:	L*	M*	H*	SH*	A*	K
	25-50	50-75	75	50-75	75	100

\*we recommend the addition of BSA to a final concentration of 100 μg/mL.

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