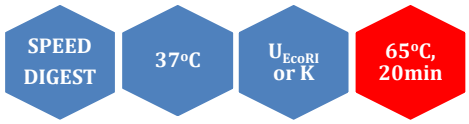
EcoR I



5’ ···G▼AATTC···3’
3’ ···CTTAA▲G···5’

EcoRI is a restriction enzyme purified from *E. coli* RY 13.

Catalogue No	*114-1, 10000 U* *114-2, 3x10000 U*
Concentration	*10-12u/µl and 40-60u/µl**

**Add an H to cat.# to order the high concentration*

Reagents supplied: 10x U_{EcoRI} and 10x K buffer

Unit substrate: Lambda DNA.

Unit calculation assay conditions: 50 mM NaCl, 100 mM Tris-HCl (pH 7.4 @ 25°C), 5 mM $MgCl_2$, 0.025% Triton X-100, 100 µg/ml bovine serum albumin and DNA. Incubate at 37°C.

Absence of contaminants: 100 units of *Eco*R I 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 *Eco*R I greater than 98% of the DNA fragments can be ligated and recut with this enzyme.

Storage buffer: 300 mM NaCl, 5 mM KPO_4, (pH 7.4), 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.

Heat inactivation: 65°C for 20 minutes.

Methylation Sensitivity:
dam methylation: Not sensitive
dcm methylation: Not sensitive
CpG methylation: Impaired by overlapping

Star activity: Conditions of low ionic strength, high enzyme concentration, glycerol concentration>5%, or pH>8.0 may result in star activity.

Percent Activity in MINOTECH Buffers

L	M	H	SH	A	**K**
25-50	50-75	75	50-75	75	**100**

General reaction mixture:

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

Incubate for 15 min at 37°C

**In the case of U_{EcoRI} buffer we recommend the addition of BSA to a final concentration of 100 µg/ml.*

Frequency of Cutting

λ	Ad-2	Φx174	pUC18	M13mp18	pBR322
5	5	0	1	1	1

Lambda DNA 0.7 % agarose

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