

Product Information

EcoR I from *Escherichia coli* BS5

Catalog Number **R6265**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

CAS RN 80498-17-5
EC 3.1.21.4
Synonym: Restriction Endonuclease *EcoR I*

Product Description

EcoR I recognizes the sequence G/AATTC and generates fragments with 5'-cohesive termini.¹



It is inhibited by the presence of N⁶-methyladenine at either or both A residues in the sequence G^mA^mATTC.

EcoR I is an isoschizomer to *Rsa I*.

0.5–100 units of *EcoR I* is not heat inactivated after incubation at $65\text{ }^{\circ}\text{C}$ for 15 min.

EcoR I Storage and Dilution Buffer: 10 mM Tris-HCl, 200 mM NaCl, 1.0 mM EDTA, 0.5 mM dithioerythritol, 0.2% Triton™ X-100, and 50% (v/v) glycerol, pH 7.0

Activity: 10,000 units/ml
Cutting: 100%

Unit Definition: One unit is the enzyme activity that completely cleaves 1 µg of λDNA in 1 hour at $37\text{ }^{\circ}\text{C}$ in a total volume of 50 µl of 1× Digestion Buffer SH for restriction enzymes. 1 µg pBR322 DNA is digested completely by 2 units of *EcoR I*.

Digestion Buffer SH (B3657) is supplied as a 10× concentrate. Composition of 1× Digestion Buffer SH for *EcoR I* – 100% Digestion at $37\text{ }^{\circ}\text{C}$: 50 mM Tris-HCl, 100 mM NaCl, 10 mM MgCl₂, and 1 mM dithioerythritol, pH 7.5

Non-specific endonuclease activity: No degradation detected with >100 units for 16 hours. 1 µg of λDNA is incubated for 16 hours in 50 µl of 1× Digestion Buffer SH with >100 units of *EcoR I*.

Fold over digestion: 1,600 (100 units × 16 hrs.)

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

References

1. Hedgpeth, J. et al., Proc. Natl. Acad. Sci USA, **69**, 3448 (1972).

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