Lucigen®

Simplifying Genomics

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Rec J Exonuclease

Cat. No. RJ411250

1. Introduction

Rec J Exonuclease, derived from *E. coli*, catalyzes removal of deoxyribonucleotide monophosphates from single stranded DNA (ssDNA) in a 5′→3′ direction. The enzyme requires magnesium (Mg^{2+}) and can be heat inactivated by incubation at 65°C for 20 minutes.

2. Product Designations and Kit Components

Product	Kit Size	Catalog Number	Reagent Description	Part Numbers	Volume
Rec J Exonuclease	250 Units	RJ411250	Rec J Exonuclease (10 U/µL)	E0059-10D1	25 µL
			10X Rec J Exonuclease Buffer	SS000272-D3	250 µL

3. Product Specifications

Storage: Store only at –65°C to –85°C in a freezer without a defrost cycle.

Storage Buffer: Rec J Exonuclease is supplied in a 50% glycerol solution containing 50 mM Tris-HCl (pH 7.5), 100 mM NaCl, 1.0 mM dithiothreitol (DTT), 0.1 mM EDTA and 0.1% Triton® X-100.

Unit Definition: One unit of Rec J Exonuclease results in the acid-solubilization of 1 nmol of nucleotides from activated single-stranded calf thymus DNA in 30 minutes at 37°C.

10X Rec J Exonuclease Reaction Buffer: 330 mM Tris-acetate (pH 7.5), 660 mM potassium acetate, 100 mM magnesium acetate and 5 mM DTT.

Quality Control: Rec J Exonuclease is function-tested in a reaction containing 33 mM Tris-acetate (pH 7.5), 66 mM potassium acetate, 10 mM magnesium acetate, 0.5 mM DTT, 10 µg of heat-denatured activated calf thymus DNA and varying amounts of Rec J Exonuclease.

Contaminating Activity Assays: Rec J Exonuclease is free of detectable RNase, DNA endonuclease, and dsDNA exonuclease activities.

4. Applications

- Removal of primers from completed PCR reactions.
- Degradation of linear ssDNA in double-stranded DNA (dsDNA) and plasmid preps.

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