Manual

Exonuclease VII

For Research Use Only. Not for use in diagnostic procedures.

Rec J Exonuclease is part of the Epicentre™ product line, known for its unique genomics kits, enzymes, and reagents which offer high quality and reliable performance.

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Manual

AmpliScribe T7-*Flash* Biotin-RNA Transcription Kit

1. Introduction

Exonuclease VII, (Exo VII) derived from *E. coli*, has a high enzymatic specificity for single-stranded DNA (ssDNA) and exhibits both 5′→3′ and 3′→5′ exonuclease activities. It is especially useful for rapid removal of single-stranded oligonucleotide primers from a completed PCR reaction when different primers are required for subsequent PCR reactions. Exo VII digestion of ssDNA works in Mg^{2+}-free buffer containing EDTA.

2. Product designations and kit components

Product	Kit size	Catalogue number	Reagent description	Part number	Volume
Exonuclease VII	250 units	EN510250	Exonuclease VII (10 units/µL)	E0029-10D1	25 µL
			5X Exonuclease VII Buffer	SS000629-D1	500 µL

3. Product specifications

Storage: Store only at -20 °C in a freezer without a defrost cycle.

Storage buffer: Exo VII is supplied in a 50% glycerol solution containing 50 mM Tris-HCl (pH 7.5), 100 mM NaCl, 1.0 mM dithiothreitol, 0.1% Triton® X-100 (Rohm & Haas) and 0.1 mM EDTA.

Unit definition: One unit of Exo VII results in the acid-solubilisation of 1 nmol of nucleotides from activated single-stranded calf thymus DNA in 30 minutes at 37 °C.

5X reaction buffer: 250 mM Tris-HCl (pH 7.9), 250 mM sodium phosphate (pH 7.8), 50 mM 2-mercaptoethanol and 42 mM EDTA

Quality control: Exo VII is function-tested in a 100 µL reaction containing 50 mM Tris-HCl (pH 7.9), 50 mM sodium phosphate (pH 7.8), 10 mM 2-mercaptoethanol, 8.3 mM EDTA, 5 µg of heat-denatured activated calf thymus DNA and varying amounts of Exo VII.

Contaminating activity assays: Exo VII is free of detectable RNase, DNA endo-, double-stranded DNA exo- and ssDNA Mg^{2+}-dependent exonuclease activities.

4. Applications

- Removal of primers from completed PCR reactions.[1]
- Minimise the effect of primers left over from previous PCR reactions.

5. Reference

1. Li, H. *et al*., 1991, *Nucl. Acids Res.* 19, 3139.

6. Further support

If you require any further support, please do not hesitate to contact our Technical Support Team: techsupport@lgcgroup.com.

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