Manual

Exo-Minus Klenow DNA Polymerase (D355A, E357A)

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Exo-Minus Klenow DNA Polymerase (D355A, E357A) 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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1. Introduction

Exo-Minus Klenow DNA Polymerase is a DNA-dependent DNA polymerase that lacks both of the 5′→3′ and 3′→5′ exonuclease activities of *E. coli* DNA Polymerase I[1] from which it is derived. This N-terminal truncation of DNA Polymerase I has two mutations (D355A and E357A).

2. Product designations and kit components

Product	Kit size	Catalogue number	Reagent description	Part number	Volume
Exo-Minus Klenow DNA Polymerase (D355A, E357A)	1,000 units	KL11101K	Exo-Minus Klenow DNA Polymerase (D355A, E357A) (10 U/µL)	E0141-10D1	100 µL
			Klenow exo- DNA Pol. 10X Buffer	SS000070-D1	5 mL

3. Product specifications

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

Storage buffer: Exo-Minus Klenow DNA Polymerase (D355A and E357A) 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 (Rohm & Haas).

Specific activity: Exo-Minus Klenow DNA Polymerase has a specific activity of >1 × 10^4 units/mg.

Unit definition: One unit converts 10 nmol of dNTPs into acid-insoluble material in 30 minutes at 37 °C under standard assay conditions.

10X Reaction Buffer: 0.2 M Tris-HCl (pH 7.5), 50 mM $MgCl_2$ and 5.0 mM DTT.

Quality Control: Exo-Minus Klenow DNA Polymerase (D355A and E357A) is function-tested in a reaction containing 20 mM Tris-HCl (pH 7.5), 5 mM $MgCl_2$, 0.5 mM DTT, 10 µg of denatured activated calf thymus DNA, 2.5 µM each dNTP and varying amounts of Exo-Minus Klenow DNA Polymerase.

Contaminating activity assays: Exo-Minus Klenow DNA Polymerase (D355A and E357A) is free of detectable endo- and exonuclease and RNase activities.

4. Reference

1. Lehman IR (1981) *The Enzymes Academic Press* 14, 16.

5. 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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