

# Exo-Minus Klenow DNA Polymerase (D355A, E357A)

Cat. Nos. KL11250, KL111K, KL11101K, and KL115K

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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<sup>1</sup> from which it is derived. This N-terminal truncation of DNA Polymerase I has two mutations (D355A and E357A).

Exo-Minus Klenow DNA Polymerase is available in two concentrations, 5 U/μl and 10 U/μl, both at a specific activity of >1 x 10<sup>4</sup> Units/mg. Each is supplied with a 10X Reaction Buffer.

## 2. Kit Contents

Cat. #	Concentration	Quantity
<b>Exo-Minus Klenow DNA Polymerase</b>		
KL11250	5 Units/μl	250 Units
KL111K	5 Units/μl	1,000 Units
KL11101K	10 Units/μl	1,000 Units
KL115K	5 Units/μl	5,000 Units

Each supplied with a 10X Reaction Buffer

## 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.

**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<sub>2</sub>, 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<sub>2</sub>, 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.

### 3. Related Products

The following products are also available:

- Klenow Fragment DNA Polymerase
- DNA Polymerase I, *E. coli*
- dNTP Solution

### 4. References

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

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