Source: A genetic fusion of the *E. coli* Lambda Exonuclease gene with the gene encoding maltose binding protein (MBP). Following affinity chromatography, Lambda Exonuclease is cleaved from the fusion construct and purified away from MBP.

Supplied in: 50 mM NaCl, 25 mM Tris-HCl (pH 8.0), 0.1 mM EDTA, 1 mM dithiothreitol and 50% glycerol.

Reagents Supplied with Enzyme:
10X Lambda Exonuclease Reaction Buffer.

Reaction Conditions:
1X Lambda Exonuclease Reaction Buffer. Incubate at 37°C.

1X Lambda Exonuclease Reaction Buffer:
67 mM Glycine-KOH 2.5 mM MgCl₂ 50 µg/ml BSA (pH 9.4 @ 25°C)

Unit Definition: One unit is defined as the amount of enzyme required to produce 10 nmol of acid soluble deoxyribonucleotide from double-stranded substrate in a total reaction volume of 50 µl in 30 minutes at 37°C.

Unit Assay Conditions: 67 mM Glycine-KOH (pH 9.4), 2.5 mM MgCl₂, 50 µg/ml BSA and 1µg sonicated duplex DNA.

Heat Inactivation: 75°C for 10 minutes.

Quality Assurance: Purified free of contaminating endonucleases and exonucleases.

Note: 5'-OH ends are digested 20X slower than 5'-PO₄ ends. Single-strand is digested 100X slower than double-strand DNA (1).

Reference: