

Active Recombinant E.coli Endonuclease VIII

Cat. No. xthA-55E **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified from a strain of <i>E. coli</i> that expresses the recombinant Exonuclease III gene.
Species	<i>E.coli</i>
Source	<i>E.coli</i>
Description	Exonuclease III is a 3'→5' exonuclease which acts by digesting one strand of a dsDNA duplex at a time or digesting the RNA strand of an RNA-DNA heteroduplex. Exonuclease III breaks phosphodiester bonds on the 5' side of AP sites in both dsDNA and ssDNA, removes 3' terminal groups on dsDNA, increases MutY turnover, and efficiently degrades 3' recessed but not 3' protruding DNA ends (creating 5' overhangs). Exo III removes a limited number of nucleotides per binding event, resulting in coordinated progressive deletions within the population of DNA molecules.
Bio-activity	100,000 U/mg
Molecular Mass	30,969 Daltons
Purity	>99% by SDS-PAGE
Unit Definition	One unit is defined as the amount of enzyme required to produce 1 nmol of acid-soluble total nucleotide in 30 minutes at 37°C.

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Storage	-25 to -15°C
Concentration	100,000 U/ml
Storage Buffer	Supplied in: 25mM Tris-HCl, 50mM KCl, 1mM DTT, 0.1mM EDTA, 50% glycerol pH 8.0 @ 25°C. Supplied with: 10X Yellow Buffer: 100mM Bis-Tris-Propane-HCl, 100mM MgCl ₂ , 10mM DTT, pH 7.0 @25°C

GENE INFORMATION

Gene Name	xthA exonuclease III [<i>Escherichia coli</i> str. K-12 substr. MG1655]
Official Symbol	xthA
Synonyms	xthA; ECK1747; JW1738; xth; exonuclease; NP_416263.1; EC 3.1.11.2
Gene ID	946254
Protein Refseq	NP_416263
Pathway	Base excision repair

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