

## Datasheet for ABIN3188232

### Exonuclease III

#### Overview

Quantity:	10000 U
Application:	DNA Modification (DNA Mod)

#### Product Details

Characteristics:	<p>Exonuclease III, E.coli digests duplex DNA in the 3'→5' <i>direction from nicked DNA, blunt end DNA, 3'-recessed ends, or 3'-overhangs of less than four bases, and yields nucleoside 5'-phosphates. The DNA degradation proceeds at a uniform rate and produces stretches of ssDNA on the opposite strand. Under defined reaction conditions, the reaction can yield predictable and reproducible digestion results. Conditions such as temperature, ionic strength, template DNA sequence and the Exonuclease III to DNA ratio need to be optimized to suit specific applications to achieve the desired excision rate. Exonuclease III, E.coli is also capable of degrading DNA from 3'-phosphate ends due to intrinsic 3'-phosphatase activity. The enzyme also has apurinic DNA endonuclease activity as well as RNase H activity.</i></p>
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Components:	Enzyme supplied with 10X Reaction Buffer
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Unit Definition:	One unit is defined as the amount of Exonuclease III, E. coli that is required to catalyze the release of 1 nmol of acid soluble nucleotides from double stranded DNA in 30 minutes at 37°C in 1X Exonuclease III Reaction Buffer.
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#### Application Details

Comment:	<ul style="list-style-type: none"> <li>• Generation of intermediates for sitedirected mutagenesis</li> <li>• Preparation of strandspecific radio labelled probes</li> <li>• Preparation of singlestranded DNA</li> <li>• Preparation of singlestranded templates for dideoxysequencing of DNA</li> <li>• Creation of unidirectional deletions in DNA fragments</li> </ul>
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Restrictions:	For Research Use only
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## Handling

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Concentration: 100 U/ $\mu$ L

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Buffer: 20 mM Tris-HCl (pH 7.5), 100 mM KCl, 1 mM DTT, and 50 % (v/v) Glycerol.

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Storage: -20 °C

## Publications

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Product cited in: Johnson, Drugan, Miller, Evans: "38" in: , Vol. 1363, Issue Nucleic acids research, pp. 28-39, (1991)