



For research use only

ISO9001

Endonuclease IV (*E.coli*)

| Product | Quantity | Cat. No. | Remarks |
|-----------------------------------|------------|----------|------------------|
| Endonuclease IV (<i>E.coli</i>) | 1,000 unit | EBT-3061 | 10 unit/ μ l |

Description

Endonuclease IV is a metalloenzyme that functions *in vivo* to repair free-radical damage in DNA and cleaves the phosphodiester bond 5' to the lesion generating a hydroxyl group at the 3'-terminus and a deoxyribose 5'-phosphate at the 5' terminus. The enzyme also has a 3' - diesterase activity and possesses a 3' to 5' exonuclease activity. Its progression on substrates is sensitive to ionic strength, metal ions, EDTA, and reducing conditions. Endonuclease IV is expressed and purified from *E.coli*.

Applications

- Studies of DNA damage and repair
- DNA structure and SNP analysis
- Antitumor drug evaluation

Reagents Supplied & Storage Condition

- Endonuclease IV : 10 unit/ μ l, Store at -20°C.
- 10x Endonuclease IV Reaction Buffer : Store at 4°C.

Reaction Condition

Endonuclease IV in 1X Endonuclease IV Reaction Buffer. Incubate at 37°C.

10x Reaction Buffer

500 mM Tris-HCl (pH 7.9), 1 M NaCl, 100 mM MgCl₂, 10 mM DTT

Storage Buffer

10 mM Tris-HCl (pH 7.4), 250 mM NaCl, 0.1 mM EDTA, 1 mM DTT, 200 μ g/ml BSA, 50% Glycerol, 0.15% Triton X-100

Unit Definition

One unit is defined as the amount of enzyme required to cleave 1 pmol of a 34-mer oligonucleotide duplex containing a single AP site* in a total reaction volume of 10 μ l in 1 hour at 37°C.

QC Tests

Activity, exo and endonuclease activity test, SDS-PAGE purity, performance tests.



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