

Recombinant e.coli nth protein

Catalog Number: ATGP1052

PRODUCT INFORMATION

Expression system

E.coli

Domain

1-211aa

UniProt No.

P0AB83

NCBI Accession No.

NP_416150

Alternative Names

Endonuclease III, b1633, JW1625, DNA-(apurinic or apyrimidinic site) lyase, Endonuclease-III

PRODUCT SPECIFICATION

Molecular Weight

25.7 kDa (231aa) confirmed by MALDI-TOF

Concentration

0.25mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 40% glycerol, 0.1M NaCl, 1mM DTT, 0.1mM PMSF

Purity

> 90% by SDS-PAGE

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

Endonuclease III, also known as nth, is a DNA repair enzyme that has both DNA N-glycosylase activity and AP-lyase activity. The DNA N-glycosylase activity releases various damaged pyrimidines from DNA by cleaving the N-glycosidic bond, leaving an AP (apurinic/apyrimidinic) site. The AP-lyase activity cleaves the phosphodiester bond 3' to the AP site by a beta-elimination, leaving a 3'-terminal unsaturated sugar and a product with a terminal 5'-phosphate. Recombinant E. coli nth protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography.

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Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MNKAKRLEIL TRLRENNPHP TTELNFSSPF ELLIAVLLSA QATDVSVNKA TAKLYPVANT
PAAMLELGVE GVKTYIKTIG LYNSKAENII KTCRILLEQH NGEVPEDRAA LEALPGVGRK TANVVLNTAF GWPTIAVDTH
IFRVCNRTQF APGKNVEQVE EKLLKVVPAE FKVDCHHWLI LHGRYTCIAR KPRCGSCIIE DLCEYKEKVD I

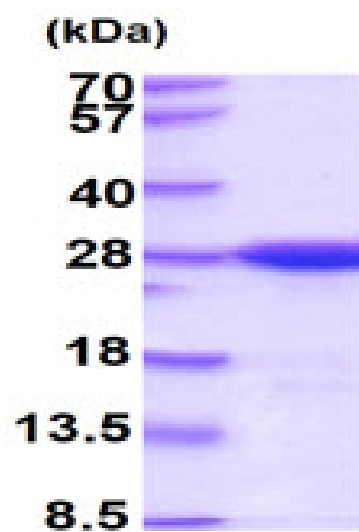
General References

Cunningham R.P., et al. (1994) Acad. Sci. 726:215-222

Asahara H., et al. (1989) Biochemistry. 28:4444-4449

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)