Recombinant human TDG protein

Catalog Number: ATGP1705

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-410aa

UniProt No.
Q13569

NCBI Accession No.
AAH37557

Alternative Names
Thymine-DNA glycosylase, G/T mismatch-specific thymine DNA glycosylase,

PRODUCT SPECIFICATION

Molecular Weight
48.4 kDa (433aa)

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4 urea, 10% glycerol, 0.1M NaCl

Purity
> 85% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE,Denatured

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
Thymine-DNA glycosylase, also known as TDG, belongs to the TDG/mug DNA glycosylase family. TDG is a nuclear protein which corrects G/T mismatches to G/C pairs by hydrolyzing the carbon-nitrogen bond between the sugar-phosphate backbone of the DNA and the mispaired thymin. TDG can also remove uracil and 5-bromouracil from mispairings with guanine. This enzyme plays a central role in cellular defense against genetic mutation caused by the spontaneous deamination of 5-methylcytosine and cytosine. Recombinant human TDG protein, fused to His-tag at N-terminus, was expressed in E. coli

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Amino acid Sequence

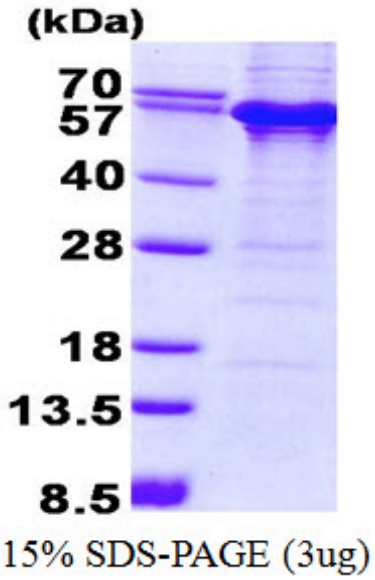
<MGSSHHHHHH SSGLVPRGSH MGS>MEAENAG SYSLQQAQAF YTFPFQQLMA EAPNMAVVNE QQMPEEVPAP APAQEPVQEA PKGRKRKPRT TEPKQPVEPK KPVESKKSGK SAKSKEKQEK ITDTFKVKRK VDRFNGVSEA ELLTKTLPDI LTFNLDIVII GINPGLMAAY KGHHYPGPGN HFWKCLFMSG LSEVQLNHMD DHTLPGKYGI GFTNMVERTT PGSKDLSSKE FREGGRILVQ KLQKYQPRIA VFNGKCIYEI FSKEVFGVKV KNLEFGLQPH KIPDTETLCY GMPSSSARCA QFPRAQDKVH YYIKLKDLRD QLKGIERNMD VQEVQYTFDL QLAQEDAKKM AVKEEKYDPG YEAAYGGAYG ENPCSSEPCG FSSNGLIESV ELRGESAFSG IPNGQWMTQS FTDQIPSFSN HCGTQEQEEE SHA

General References

um S., et al. (1998) J Biol Chem. 273:20728-20736.
Hardeland u., et al. (2002) EMBO J. 21:1456-1464.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

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