

AR50529PU-N

Human TDG (1-410, His-tag) - Purified

Alternate names:

G/T mismatch-specific thymine DNA glycosylase

Quantity:

0.5 mg

Concentration:

0.5 mg/ml (determined by Bradford assay)

Background:

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 thymine. 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

Uniprot ID:

[Q13569](#)

NCBI:

[AAH37557](#)

GeneID:

[6996](#)

Species:

Human

Source:

E. coli

Format:

State: Liquid purified protein

Purity: >90% by SDS - PAGE

Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 0.4 Urea, 10% glycerol, 0.1M NaCl

Description:
AA Sequence:

MGSSHHHHHH SSGLVPRGSH MGSMEAENAG SYSLQQAQAF YTFPFQQLMA EAPNMAVVNE
QQMPEEVPAP APAQEPVQEA PKGRKRKPRT TEPKQPVEPK KPVESKKSGK SAKSKEKQEK
ITDTFKVKRK VDRFNGVSEA ELLTKTLPDI LTFNLDIVII GINPGLMAAY KGHYPGPNG
HFWKCLFMSG LSEVQLNHMD DHTLPKGYGI GFTNMVERTT PGSKDLSSKE FREGGRILVQ
KLQKYQPRIA VFNGKCIYEI FSKEVFGVKV KNLEFGLQPH KIPDTETLCY GMPSSSARCA
QFPRAQDKVH YYIKLKDLDL QLKGIERNMD VQEVQYTFDL QLAQEDAKKM AVKEEKYDPG
YEAAYGGAYG ENPCSSEPCG FSSNGLIESV ELRGESAFSG IPNGQWMTQS FTDQIPSFNS
HCGTQEQQEE SHA

Molecular weight: 48.4 kDa (433aa)

Storage:

Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

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