

Product Name: TDG Rabbit Polyclonal Antibody
Catalog #: APRab18760



Summary

Production Name	TDG Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	TDG
Alternative Names	TDG; G/T mismatch-specific thymine DNA glycosylase; Thymine-DNA glycosylase
Gene ID	6996.0
SwissProt ID	Q13569.The antiserum was produced against synthesized peptide derived from human TDG. AA range:31-80

Application

Dilution Ratio	WB 1:500-1:2000. ELISA: 1:5000.
Molecular Weight	46kD

Background

The protein encoded by this gene belongs to the TDG/mug DNA glycosylase family. Thymine-DNA glycosylase (TDG)

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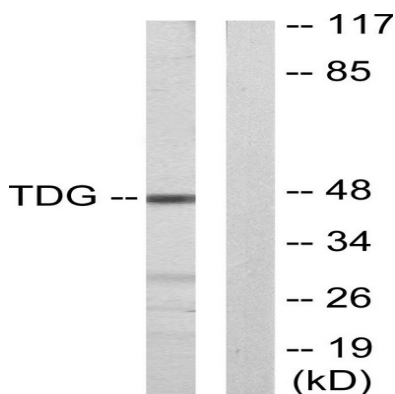


removes thymine moieties from G/T mismatches by hydrolyzing the carbon-nitrogen bond between the sugar-phosphate backbone of DNA and the mispaired thymine. With lower activity, this enzyme also removes thymine from C/T and T/T mispairings. TDG can also remove uracil and 5-bromouracil from mispairings with guanine. This enzyme plays a central role in cellular defense against genetic mutation caused by the spontaneous deamination of 5-methylcytosine and cytosine. This gene may have a pseudogene in the p arm of chromosome 12. [provided by RefSeq, Jul 2008],function:In the DNA of higher eukaryotes, hydrolytic deamination of 5-methylcytosine to thymine leads to the formation of G/T mismatches. This enzyme corrects G/T mispairs to G/C pairs. It is capable of hydrolyzing the carbon-nitrogen bond between the sugar-phosphate backbone of the DNA and a mispaired thymine. In addition to the G/T, it can remove thymine also from C/T and T/T mispairs in the order G/T >> C/T > T/T. It has no detectable activity on apyrimidinic sites and does not catalyze the removal of thymine from A/T pairs or from single-stranded DNA. It can also remove uracil and 5-bromouracil from mispairs with guanine.,PTM:Sumoylation on Lys-330 by either SUMO1 or SUMO2 induces dissociation of the product DNA.,similarity:Belongs to the TDG/mug DNA glycosylase family.,

Research Area

Base excision repair;

Image Data



Western blot analysis of lysates from Jurkat cells, using TDG Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.