



Anti- TDG (G/T mismatch-specific thymine DNA glycosylase) Polyclonal Antibody

Category: Polyclonal Antibody

Catalog #: AB1F066

Species Reactivity: Human, Mouse, rat

Immunogen/Specificity:

Polyclonal antibody produced in rabbits immunizing with a synthetic peptide corresponding to C-terminal residues of human TDG (G/T mismatch-specific thymine DNA glycosylase)

Description: In the DNA of higher eukaryotes, hydrolytic deamination of 5-methylcytosine to thymine leads to the formation of G/T mismatches. TDG(G/T mismatch-specific thymine DNA glycosylase) 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, TDG 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. TDG can also remove uracil and 5-bromouracil from mispairs with guanine. Sumoylation on Lys-330 by either SUMO1 or SUMO2 induces dissociation of the product DNA. TDG belongs to the TDG/mug DNA glycosylase family.

Reference:

Neddermann,P., et al, J. Biol. Chem. 271 (22), 12767-12774 (1996)
Neddermann,P. and Jiricny,J., Proc. Natl. Acad. Sci. U.S.A. 91 (5), 1642-1646 (1994)
Hardeland,U., et al, EMBO J. 21 (6), 1456-1464 (2002)
Baba,D., et al, Nature 435 (7044), 979-982 (2005)

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Contact: Antagene, Inc. | Tel: 1 (866) 964-2589 | Fax: 1 (888) 225-1868 | Email: Info@antageneinc.com