Rabbit TDG Polyclonal Antibody | anti-TDG antibody

TDG Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321880	**Rabbit**	**Human, Mouse, Rat**	**ELISA, Immunocytochemistry, Immunofluorescence, Western Blot**

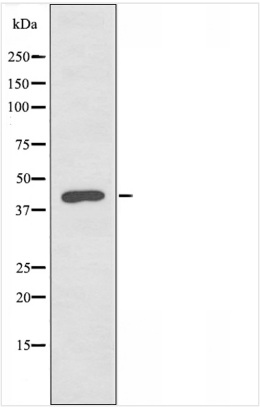
PRODUCT SYNONYMS

TDG; Polyclonal Antibody; TDG Antibody; C JUN leucine zipper interactive protein; C-JUN leucine zipper interactive protein JZA-3; E130317C12Rik; EC 3.2.2.29; G/T mismatch specific thymine DNA glycosylase; G/T mismatch-specific thymine DNA glycosylase; JZA 3; Jza1; T:G mismatch thymine glycosylase; Tdg; TDG_HUMAN; Thymine DNA glycosylase; Thymine-DNA glycosylase; anti-TDG antibody

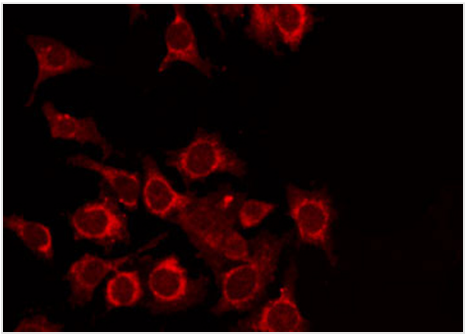
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	TDG antibody detects endogenous levels of total TDG
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	410
Applicable Applications for anti-TDG antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human TDG
Subcellular Location	Nucleus.
Predicted Cross Reactivity	**Pig, Bovine, Horse, Sheep, Rabbit, Dog, Xenopus**
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (91%), Dog (100%), Xenopus (88%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of TDG antibody expression in rat heart tissue lysates.



IF (Immunofluorescence)
AAA321880 staining Hela by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-TDG antibody	Description: 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. Function: DNA glycosylase that plays a key role in active DNA demethylation: specifically recognizes and binds 5-formylcytosine (5fC) and 5-carboxylcytosine (5caC) in the context of CpG sites and mediates their excision through base-excision repair (BER) to install an unmethylated cytosine. Cannot remove 5-hydroxymethylcytosine (5hmC). According to an alternative model, involved in DNA demethylation by mediating DNA glycolase activity toward 5-hydroxymethyluracil (5hmU) produced by deamination of 5hmC. Also involved in DNA repair by acting as a thymine-DNA glycosylase that mediates correction of G/T mispairs to G/C pairs: in the DNA of higher eukaryotes, hydrolytic deamination of 5-methylcytosine to thymine leads to the formation of G/T mismatches. Its role in the repair of canonical base damage is however minor compared to its role in DNA demethylation. 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. Subunit Structure: Homodimer. Interacts with AICDA and GADD45A. Post-translational Modifications: Sumoylation on Lys-330 by either SUMO1 or SUMO2 induces dissociation of the product DNA. Similarity: Belongs to the uracil-DNA glycosylase (UDG) superfamily. TDG/mug family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	59853162
NCBI GeneID	6996
NCBI Accession #	NP_003202.3
NCBI GenBank Nucleotide #	NM_003211.5
UniProt Accession #	Q13569; Q8IUZ6; Q8IZM3
Molecular Weight	Observed: 46 kDa Predicted: 47 kDa
NCBI Official Full Name	G/T mismatch-specific thymine DNA glycosylase isoform 1
NCBI Official Synonym Full Names	thymine DNA glycosylase
NCBI Official Symbol	TDG
NCBI Official Synonym Symbols	hTDG

NCBI Protein Information	G/T mismatch-specific thymine DNA glycosylase
UniProt Protein Name	G/T mismatch-specific thymine DNA glycosylase
UniProt Gene Name	**TDG**
UniProt Synonym Gene Names	hTDG

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://www.aaabiotech.com/polyclonal/tdg-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/321880