For Research Use Only

TDG Polyclonal antibody

Catalog Number:13370-1-AP Featured Product 9 Publications

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Basic Information

Catalog Number:
13370-1-AP

Size:
150ul , Concentration: 400 ug/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG4190

GenBank Accession Number:
BC037557

GeneID (NCBI):
6996

UNIPROT ID:
Q13569

Full Name:
thymine-DNA glycosylase

Calculated MW:
410 aa, 46 kDa

Observed MW:
55-60 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:2000-1:10000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IF/ICC 1:50-1:500

Applications

Tested Applications:
WB, IF/ICC, IP, ELISA

Cited Applications:
WB, IHC, IP, ChIP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse

Positive Controls:

WB : Caco-2 cells, mouse colon tissue, HeLa cells, human brain tissue, Raji cells, mouse thymus tissue, HCT-116 cells, Jurkat cells, K-562 cells, MCF-7 cells

IP : U-937 cells,

IF/ICC : HeLa cells,

Background Information

TDG belongs to the TDG/mug DNA glycosylase family. TDG 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. RNF4 interacts with and requires the base excision repair enzymes TDG and APE1 for active demethylation (PMID:20696907). TDG is modified by SUMO-1 and SUMO-2/3.The molecular weight of non-modified TDG is 46 kDa and modified TDG is 55-60 kDa.

Notable Publications

Author	Pubmed ID	Journal	Application
Jiyu Miao	35414793	Int J Biol Sci	WB
Umut Sahin	24637324	J Cell Biol	WB,IP
Etsuko Shibata	24962565	J Biol Chem	WB

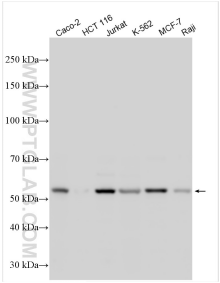
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

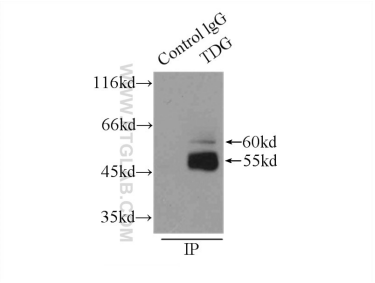
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

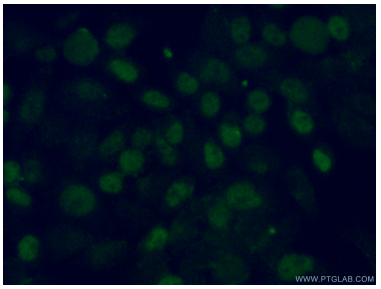
Selected Validation Data



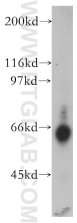
Various lysates were subjected to SDS PAGE followed by western blot with 13370-1-AP (TDG antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



IP result of anti-TDG (IP:13370-1-AP, 3ug; Detection:13370-1-AP 1:400) with U-937 cells lysate 3000ug.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using 13370-1-AP (TDG antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated Goat Anti-Rabbit IgG(H+L).



human brain tissue were subjected to SDS PAGE followed by western blot with 13370-1-AP (TDG antibody) at dilution of 1:400 incubated at room temperature for 1.5 hours.