

For Research Use Only

TDG Monoclonal antibody

Catalog Number: 66707-1-Ig **Featured Product**



Basic Information

Catalog Number: 66707-1-Ig	GenBank Accession Number: BC037557	Purification Method: Protein G purification
Source: Mouse	GeneID (NCBI): 6996	CloneNo.: 1G2E2
Isotype: IgG2b	UNIPROT ID: Q13569	Recommended Dilutions: WB: 1:1000-1:8000 IHC: 1:200-1:800 IF/ICC: 1:50-1:500
Immunogen Catalog Number: AG27408	Full Name: thymine-DNA glycosylase	
	Calculated MW: 410 aa, 46 kDa	
	Observed MW: 55-60 kDa	

Applications

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

Species Specificity:
human, mouse, rat

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, HEK-293 cells, HT-29 cells, COLO 320 cells, Jurkat cells, Raji cells, HSC-T6 cells

IHC : human breast cancer tissue,

IF/ICC : HepG2 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.

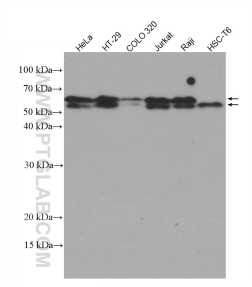
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

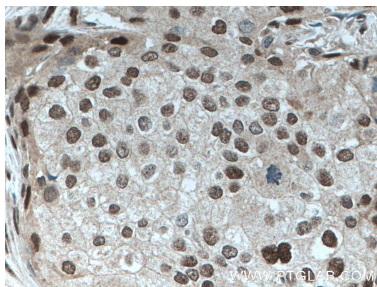
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

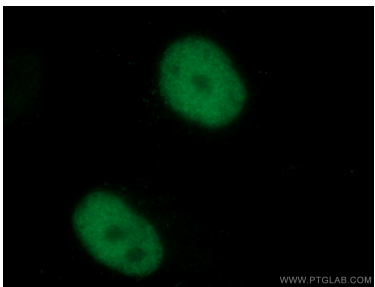
Selected Validation Data



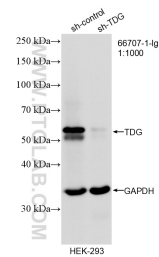
Various lysates were subjected to SDS PAGE followed by western blot with 66707-1-Ig (TDG antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 66707-1-Ig (TDG antibody) at dilution of 1:400 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using 66707-1-Ig (TDG antibody) at dilution of 1:100 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



WB result of TDG antibody (66707-1-Ig; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-TDG transfected HEK-293 cells.