

For Research Use Only

# TDG Monoclonal antibody

Catalog Number: 66707-1-Ig



## Basic Information

**Catalog Number:**

66707-1-Ig

**Size:**

150ul , Concentration: 933 µg/ml by Bradford method using BSA as the standard;

**Source:**

Mouse

**Isotype:**

IgG2b

**Immunogen Catalog Number:**

AG27408

**GenBank Accession Number:**

BC037557

**GeneID (NCBI):**

6996

**Full Name:**

thymine-DNA glycosylase

**Calculated MW:**

410 aa, 46 kDa

**Observed MW:**

55-60 kDa

**Purification Method:**

Protein A purification

**CloneNo.:**

1G2E2

**Recommended Dilutions:**

WB 1:1000-1:8000

IHC 1:200-1:800

IF 1:50-1:500

## Applications

**Tested Applications:**

IF, IHC, WB, ELISA

**Species Specificity:**

Human, rat, mouse

**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,

IHC : human breast cancer tissue,

IF : 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 pH 7.3.

Aliquoting is unnecessary for -20°C storage

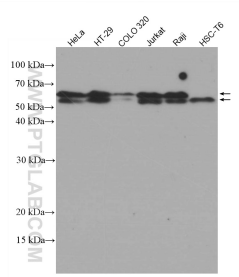
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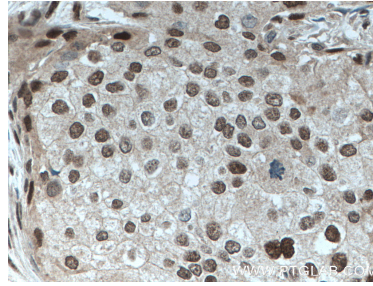
E: proteintech@ptglab.com  
W: ptglab.com

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## 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).