

# TDG Monoclonal antibody

Catalog Number: 66707-1-Ig

## Basic Information

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

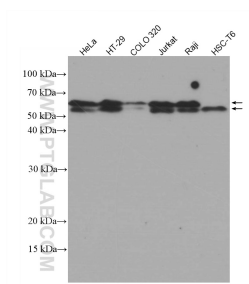
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E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

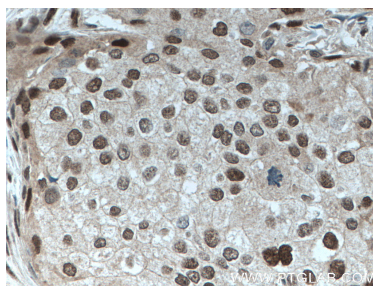
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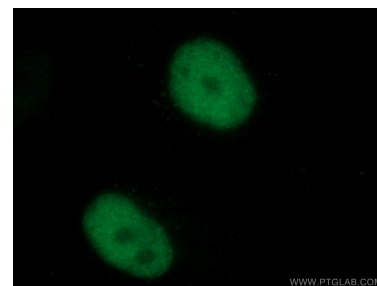
## Selected Validation Data



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).