For Research Use Only

TDG Monoclonal antibody

Catalog Number:66707-1-Ig

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Antibodies | ELISA kits | Proteins
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Basic Information

Catalog Number:
66707-1-Ig

Size:
150ul , Concentration: 1000 ug/ml by Nanodrop and 933 ug/ml by Bradford method using BSA as the standard;

Source:
Mouse

Isotype:
IgG2b

Immunogen Catalog Number:
AG27408

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:
Protein G purification

CloneNo.:
1G2E2

Recommended Dilutions:
WB 1:1000-1:8000
IHC 1:200-1:800
IF/ICC 1:50-1:500

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

***** 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
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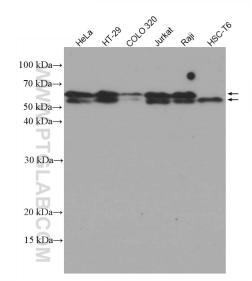
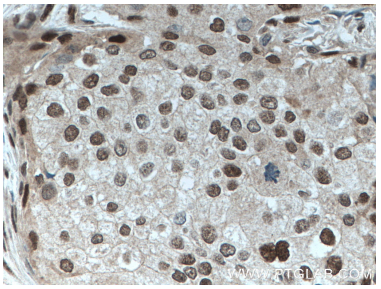
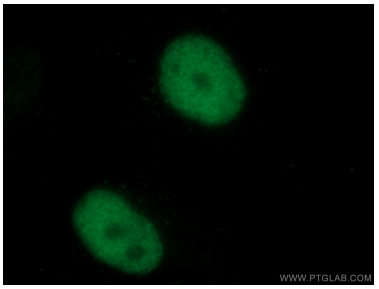
Selected Validation Data



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).