

For Research Use Only

TDG Recombinant antibody

Catalog Number: 83780-3-RR



Basic Information

Catalog Number: 83780-3-RR	GenBank Accession Number: BC037557	Purification Method: Protein A purification
Concentration: 1000 ug/ml	GeneID (NCBI): 6996	CloneNo.: 240715E12
Source: Rabbit	UNIPROT ID: Q13569	Recommended Dilutions: IF/ICC: 1:125-1:500
Isotype: IgG	Full Name: thymine-DNA glycosylase	FC (Intra): 0.25 ug per 10 ⁶ cells in a 100 µl suspension
Immunogen Catalog Number: AG4190	Calculated MW: 410 aa, 46 kDa	

Applications

Tested Applications: IF/ICC, FC (Intra), ELISA	Positive Controls: IF/ICC : HepG2 cells,
Species Specificity: human	FC (Intra) : 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.

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:

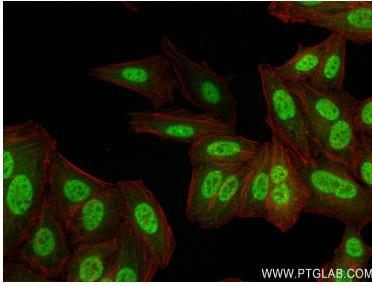
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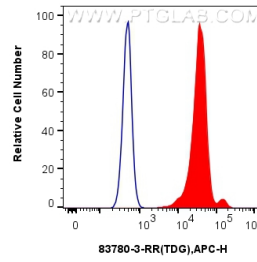
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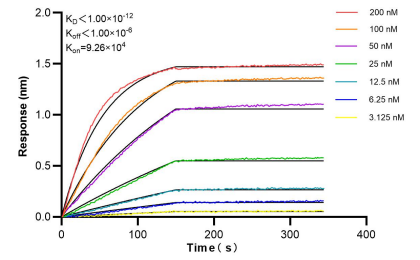
Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using TDG antibody (83780-3-RR, Clone: 240715E12) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).



1×10^6 HeLa cells were intracellularly stained with 0.25 μ g TDG Recombinant Antibody (83780-3-RR, Clone: 240715E12) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 μ g Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with 0.1% TritonX-100.



Biolayer interferometry (BLI) kinetic assays of 83780-3-RR against Human TDG were performed. The affinity constant is below 1 pM.