

For Research Use Only

# TDG Recombinant antibody

Catalog Number: 83780-3-RR



## Basic Information

<b>Catalog Number:</b> 83780-3-RR	<b>GenBank Accession Number:</b> BC037557	<b>Purification Method:</b> Protein A purification
<b>Size:</b> 100ul , Concentration: 1000 ug/ml by Nanodrop;	<b>GeneID (NCBI):</b> 6996	<b>CloneNo.:</b> 240715E12
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> Q13569	<b>Recommended Dilutions:</b> IF/ICC 1:125-1:500
<b>Isotype:</b> IgG	<b>Full Name:</b> thymine-DNA glycosylase	
<b>Immunogen Catalog Number:</b> AG4190	<b>Calculated MW:</b> 410 aa, 46 kDa	

## Applications

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

## 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

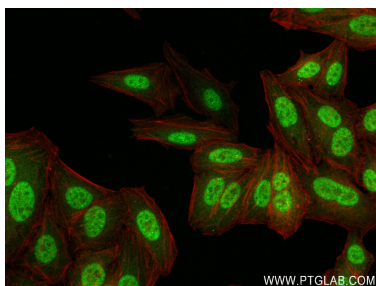
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

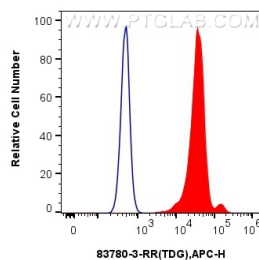
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
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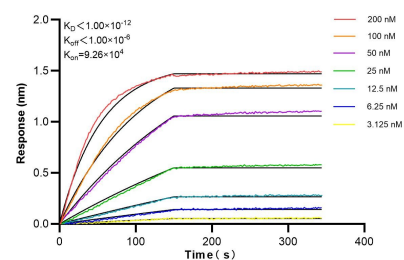
## Selected Validation Data



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).



$1 \times 10^6$  HeLa cells were intracellularly stained with 0.25  $\mu$ g TDG Recombinant Antibody (83780-3-RR, Clone: 240715E12) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25  $\mu$ 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.