For Research Use Only

TDG Recombinant antibody, PBS Only (Detector)

Catalog Number:83780-3-PBS

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Antibodies | ELISA kits | Proteins
Uni-rAb
www.ptglab.com

Basic Information

Catalog Number:
83780-3-PBS

Size:
100ug , Concentration: 1 mg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG4190

GenBank Accession Number:
BC037557

GeneID (NCBI):
6996

UNIPROT ID:
Q13569

Full Name:
thymine-DNA glycosylase

Calculated MW:
410 aa, 46 kDa

Purification Method:
Protein A purification

CloneNo.:
240715E12

Applications

Tested Applications:
IF/ICC, FC (Intra), Cytometric bead array, Indirect ELISA

Species Specificity:
human

Product Information

83780-3-PBS targets TDG as part of a matched antibody pair:

MP00744-1: 83780-1-PBS capture and 83780-3-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications.Antibody use should be optimized by the end user for each application and assay.

Background Information

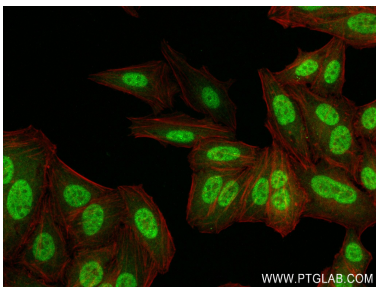
TDG belongs to the TDG/mug DNA glycosylase family. TDG corrects G/T mispairs to G/C pairs. It is capable of hydrolyzing the carbon-nitrogen bond between the sugar-phosphate backbone of the DNA and a mispaired thymine. In addition to the G/T, it can remove thymine also from C/T and T/T mispairs in the 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

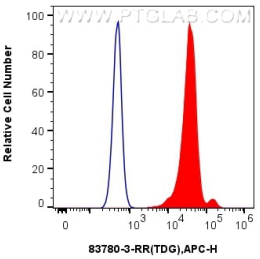
Storage:
Store at -80°C.
Storage Buffer:
PBS Only

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
W: ptglab.com

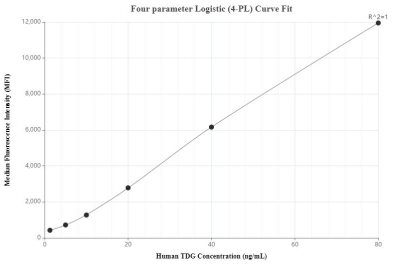
Selected Validation Data



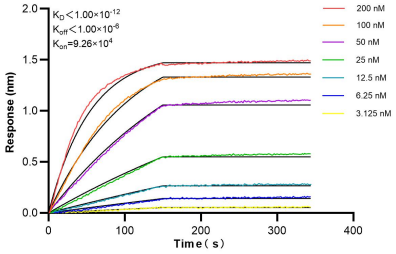
Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using TDG antibody (83780-3-RR, Clone: 240715E12) at dilution of 1:250 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red). This data was developed using the same antibody clone with 83780-3-PBS in a different storage buffer formulation.



1x10^6 HeLa cells were intracellularly stained with 0.25 ug TDG Recombinant Antibody (83780-3-RR, Clone:240715E12) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with 0.1% TritonX-100. This data was developed using the same antibody clone with 83780-3-PBS in a different storage buffer formulation.



Cytometric bead array standard curve of MP00744-1, TDG Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83780-1-PBS. Detection antibody: 83780-3-PBS. Standard: Ag4190. Range: 1.25-80 ng/mL.



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