

For Research Use Only

CoraLite® Plus 488-conjugated APEX1 Monoclonal antibody



Catalog Number: CL488-67781

Featured Product

Basic Information

Catalog Number: CL488-67781	GenBank Accession Number: BC002338	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 328	CloneNo.: 2B10B2
Source: Mouse	Full Name: APEX nuclease (multifunctional DNA repair enzyme) 1	Excitation/Emission maxima wavelengths: 488 nm / 515 nm
Isotype: IgG2a	Calculated MW: 36 kDa	
Immunogen Catalog Number: AG28552	Observed MW: 36 kDa	

Applications

Tested Applications:
FC (Intra)

Species Specificity:
Human, Mouse, Rat, Pig, Rabbit

Background Information

APEX1, also named as APE, APE1, HAP1 and REF-1, belongs to the DNA repair enzymes AP/ExoA family. It is a multifunctional protein that plays a central role in the cellular response to oxidative stress. The two major activities of APEX1 are in DNA repair and redox regulation of transcriptional factors. APEX nuclease is a DNA repair enzyme having apurinic/apyrimidinic (AP) endonuclease, 3-prime,5-prime-exonuclease, DNA 3-prime repair diesterase, and DNA 3-prime-phosphatase activities. On the other hand, APEX1 also exerts reversible nuclear redox activity to regulate DNA binding affinity and transcriptional activity of transcriptional factors by controlling the redox status of their DNA-binding domain, such as the FOS/JUN AP-1 complex after exposure to IR. APEX1 is involved in calcium-dependent down-regulation of parathyroid hormone (PTH) expression by binding to negative calcium response elements (nCaREs). When acetylated at Lys-6 and Lys-7, APEX1 stimulates the YBX1-mediated MDR1 promoter activity, leading to drug resistance. It also acts as an endoribonuclease involved in the control of single-stranded RNA metabolism. It plays a role in regulating MYC mRNA turnover by preferentially cleaving in between UA and CA dinucleotides of the MYC coding region determinant (CRD). In association with NMD1, APEX1 plays a role in the rRNA quality control process during cell cycle progression.

Storage

Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.

Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.

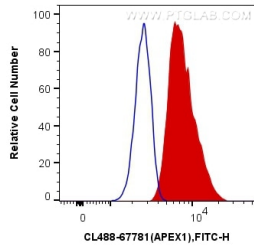
Aliquoting is unnecessary for -20°C storage

*** 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)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

Selected Validation Data



1X10⁶ NIH/3T3 cells were intracellularly stained with 0.8 ug CoraLite® Plus 488 Anti-Human APEX1 (CL488-67781, Clone:2B10B2) (red), or 0.8 ug Mouse IgG2a Isotype Control (CL488-66360-2, Clone: K11A1B2A2) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).