## APEX Nuclease Monoclonal Mouse Antibody (CPTC-APEX1-2)

## **Product Description**

APEX Nuclease (also known as APEX1 or APE1) 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. It functions as a apurinic/apyrimidinic (AP) endodeoxyribonuclease in the DNA base excision repair (BER) pathway of DNA lesions induced by oxidative and alkylating agents. Patients with genetic variants in APEX1 have been shown to have a higher risk of lung cancer. Elevated APEX1 levels observed in human testicular cancer may be related to relative resistance to therapy and therefore may serve as a diagnostic marker for refractory disease.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the CF® Dye Brochure for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email <a href="mailto:order@biotium.com">order@biotium.com</a> to inquire about stock status and lead times before placing your order.

Catalog number key for antibody number 2260, APEX Nuclease I Monoclonal Mouse Antibody (CPTC-APEX1-2)

## Product attributes

Product attributes				
research-areas	Cancer			
Antibody number	#2260			
Antibody reactivity (target)	APEX Nuclease I			
Antibody type	Primary			
Host species	Mouse			
Clonality	Monoclonal			
Clone	CPTC-APEX1-2			
Isotype	IgG1, kappa			
Molecular weight	35 kDa			
Synonyms	DNA-(apurinic or apyrimidinic site) endonuclease; APEX1; AP endonuclease class I; Apurinic/Apyrimidinic Endodeoxyribonuclease 1; APE; Redox factor-1; APX			
Human gene symbol	APEX1			
Entrez gene ID	328			
SwissProt	P27695			
Unigene	73722			
Immunogen	Recombinant human full-length APEX1 protein			
Verified antibody applications	Flow (intracellular) (verified), IF (verified), IHC (FFPE) (verified), WB (verified) $$			
Antibody target cellular localization	Nucleus			
Species reactivity	Human			
Positive control	A431, A549, PC3, HAP1, HePG2, MCF-7, HeLa, NIH/3T3 and C6 whole cell lysates. Human ovarian carcinoma.			
Shipping condition	Room temperature			
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C			
Regulatory status	For research use only (RUO)			
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended			
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide			
Validated in protein array	Monospecific			
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.			
Tumor expression	Testicular cancer			

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Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	CF®405S Features
BNC88	CF®488A	490/515	488	GFP, FITC	CF®488A Features
BNC68	CF®568	562/583	532, 561	RFP, TRITC	CF®568 Features
BNC94	CF®594	593/614	561	Texas Red®	CF®594 Features
BNC40	CF®640R	642/662	633-640	Cy®5	CF®640R Features
BNC47	CF®647	650/665	633-640	Cy®5	CF®647 Features
BNC74	CF®740	742/767	633-685	775/50	CF®740 Features
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

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