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# 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 order@biotium.com 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

| | |
|---|---|
| **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 of antigen** | 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 |

| 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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