



# Topoisomerase II Alpha Monoclonal Mouse Antibody (TOP2A/1362)

## Product Description

This antibody recognizes a 170 kDa protein, which is identified as topoisomerase II $\alpha$ . It shows no cross-reaction with topoisomerase II $\beta$  or topoisomerase I. Topo II $\alpha$  plays important roles in synthesis and transcription of DNA as well as chromosomal segregation during mitosis. It is reported to be a sensitive and specific marker of late S-, G2- & M-phases in transformed and developmentally regulated normal cells. Topo II $\alpha$  is also implicated in drug resistance of tumor cells. Primary antibodies are available purified, or with a selection of fluorescent CF $\circledR$  dyes and other labels. CF $\circledR$  dyes offer exceptional brightness and photostability. See the [CF \$\circledR\$  Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF $\circledR$ 405S and CF $\circledR$ 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 $\circledR$  dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order. **Catalog number key for antibody number 1362, Anti-Topoisomerase-II-Alpha (TOP2A/1362)**

### Product attributes

Antibody number	#1362
Antibody reactivity (target)	Topoisomerase-II-Alpha
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	TOP2A/1362
Isotype	IgG2b, kappa
Molecular weight	170 kDa
Synonyms	ATP hydrolyzing DNA topoisomerase II $\alpha$ ; DNA gyrase; DNA topoisomerase (ATP hydrolyzing); DNA topoisomerase 2 $\alpha$ ; DNA topoisomerase II 170kD; DNA topoisomerase II $\alpha$ ; DNA Topoisomerase2; TOP2A; Topoisomerase DNA II $\alpha$ 170kDa; TP2A
Human gene symbol	TOP2A
Entrez gene ID	7153
SwissProt	P11388
Unigene	156346
Immunogen	Recombinant human Topoisomerase II $\alpha$ fragment (aa1352-1493) (exact sequence is proprietary)
Verified antibody applications	IF (verified), IHC (FFPE) (verified), WB (verified)
Antibody target cellular localization	Nucleus
Species reactivity	Human
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 1-2 $\mu$ g/mL, Immunohistology (formalin): 0.5-1 $\mu$ g/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 $\mu$ g/million cells/0.1 mL, Western blotting 0.5-1 $\mu$ g/mL, Optimal dilution for a specific application should be determined by user
Positive control	HeLa Cells or Tonsil
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 $^{\circ}$ C. Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 $^{\circ}$ C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
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
Antibody research areas	Cell cycle

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel
BNC04	CF $\circledR$ 405S	404/431	405	DAPI (microscopy), AF405
BNC88	CF $\circledR$ 488A	490/515	488	GFP, FITC
BNC68	CF $\circledR$ 568	562/583	532, 561	RFP, TRITC
BNC94	CF $\circledR$ 594	593/614	561	Texas Red $\circledR$
BNC40	CF $\circledR$ 640R	642/662	633-640	Cy $\circledR$ 5
BNC47	CF $\circledR$ 647	650/665	633-640	Cy $\circledR$ 5
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

- Dye Features**
- [CF \$\circledR\$ 405S Features](#)
  - [CF \$\circledR\$ 488A Features](#)
  - [CF \$\circledR\$ 568 Features](#)
  - [CF \$\circledR\$ 594 Features](#)
  - [CF \$\circledR\$ 640R Features](#)
  - [CF \$\circledR\$ 647 Features](#)

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