



# TDP2 / EAPII Monoclonal Mouse Antibody (TDP2/1258)

## Product Description

This MAb recognizes a protein of 41 kDa, which is identified as TDP2. It is a member of a superfamily of divalent cation-dependent phosphodiesterases. The encoded protein associates with CD40, tumor necrosis factor (TNF) receptor-75 and TNF receptor associated factors (TRAFs), and inhibits nuclear factor-kappa-B activation. This protein has sequence and structural similarities with APE1 endonuclease, which is involved in both DNA repair and the activation of transcription factors. DNA repair enzyme that can remove a variety of covalent adducts from DNA through hydrolysis of a 5'-phosphodiester bond, giving rise to DNA with a free 5' phosphate. Catalyzes the hydrolysis of dead-end complexes between DNA and the topoisomerase 2 (TOP2) active site tyrosine residue. Hydrolyzes 5'-phosphoglycolates on protruding 5' ends on DNA double-strand breaks (DSBs) due to DNA damage by radiation and free radicals. The 5'-tyrosyl DNA phosphodiesterase activity can enable the repair of TOP2-induced DSBs without the need for nuclease activity, creating a 'clean' DSB with 5'-phosphate termini that are ready for ligation. Has also 3'-tyrosyl DNA phosphodiesterase activity, but less efficiently and much slower than TDP1. May also act as a negative regulator of ETS1 and may inhibit nuclear factor-kappa-B activation. 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](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order. **Catalog number key for antibody number 1258, Anti-EAPII (TDP2/1258)**

Product attributes	
Antibody number	#1258
Antibody reactivity (target)	EAPII, TDP2
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	TDP2/1258
Isotype	IgG2b, kappa
Molecular weight	~41 kDa
Synonyms	5'-Tyr-DNA phosphodiesterase; EAP2; EAPII; ETS1-associated protein 2; ETS1-associated protein II; TRAF and TNF receptor-associated protein; TTRAP; Tyr-DNA phosphodiesterase 2; Tyrosyl-DNA phosphodiesterase 2 (TDP2)
Human gene symbol	TDP2
Entrez gene ID	51567 (Human)
SwissProt	O95551 (Human)
Unigene	728795 (Human)
Immunogen	Recombinant human full-length TDP2 protein
Verified antibody applications	IHC (FFPE) (verified)
Antibody target cellular localization	Nucleus & cytoplasm
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: 0.5-1 ug/mL, Immunohistochemistry (formalin): 0.5-1 ug/mL. Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM Tris, 1 mM EDTA pH 9.0 for 10-20 min followed by cooling at RT for 20 min, Flow Cytometry 0.5-1 ug/million cells/0.1 mL. Optimal dilution for a specific application should be determined by user
Positive control	Jurkat cells. Lung, Duodenum or Small Intestinal 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
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	Signal transduction

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

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