

**EAPII Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP11233B****Specification**

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**EAPII Antibody (C-term) - Product Information**

Application	FC, IF, IHC-P, WB,E
Primary Accession	<a href="#">O95551</a>
Other Accession	<a href="#">NP_057698</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	40930
Antigen Region	246-272

**EAPII Antibody (C-term) - Additional Information****Gene ID** 51567**Other Names**

Tyrosyl-DNA phosphodiesterase 2, Tyr-DNA phosphodiesterase 2, hTDP2, 314-, 5'-tyrosyl-DNA phosphodiesterase, 5'-Tyr-DNA phosphodiesterase, ETS1-associated protein 2, ETS1-associated protein II, EAPII, TRAF and TNF receptor-associated protein, Tyrosyl-RNA phosphodiesterase, VPg unlinkase, TDP2, EAP2, TTRAP

**Target/Specificity**

This EAPII antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 246-272 amino acids from the C-terminal region of human EAPII.

**Dilution**

FC~~1:10~50

IF~~1:10~50

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

EAPII Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## EAPII Antibody (C-term) - Protein Information

**Name** TDP2 {ECO:0000303|PubMed:27060144}

**Function** 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. The 5'-tyrosyl DNA phosphodiesterase activity can enable the repair of TOP2-induced DNA double-strand breaks/DSBs without the need for nuclease activity, creating a 'clean' DSB with 5'- phosphate termini that are ready for ligation (PubMed:[27060144](#), PubMed:[27099339](#)). Thereby, protects the transcription of many genes involved in neurological development and maintenance from the abortive activity of TOP2. Hydrolyzes 5'-phosphoglycolates on protruding 5' ends on DSBs due to DNA damage by radiation and free radicals. Has preference for single-stranded DNA or duplex DNA with a 4 base pair overhang as substrate. Acts as a regulator of ribosome biogenesis following stress. Also has 3'-tyrosyl DNA phosphodiesterase activity, but less efficiently and much slower than TDP1. Constitutes the major if not only 5'-tyrosyl-DNA phosphodiesterase in cells. Also acts as an adapter by participating in the specific activation of MAP3K7/TAK1 in response to TGF-beta: associates with components of the TGF-beta receptor-TRAF6-TAK1 signaling module and promotes their ubiquitination dependent complex formation. Involved in non-canonical TGF-beta induced signaling routes. May also act as a negative regulator of ETS1 and may inhibit NF-kappa-B activation.

### Cellular Location

Nucleus. Nucleus, PML body Nucleus, nucleolus. Cytoplasm Note=Localizes to nucleolar cavities following stress; localization to nucleolus is dependent on PML protein.

### Tissue Location

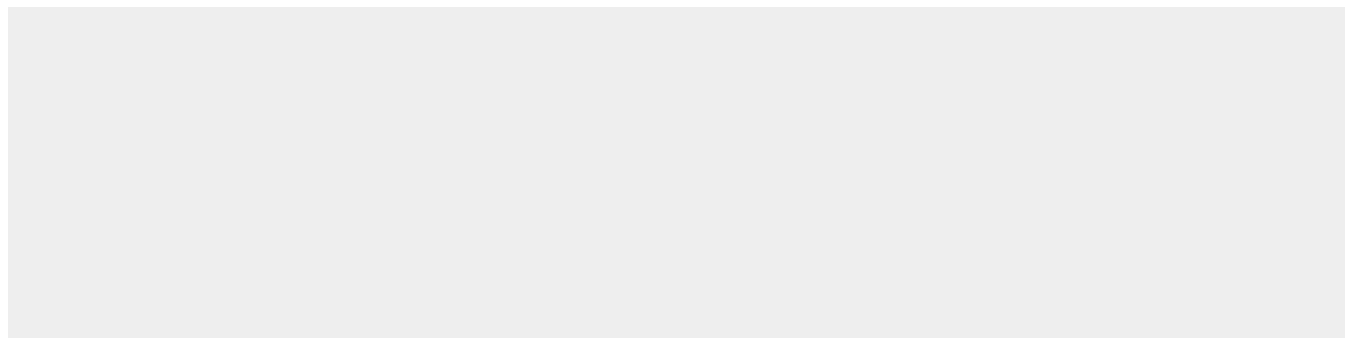
Widely expressed (PubMed:10764746). Highly expressed in various brain regions, including the frontal and occipital lobes, the hippocampus, the striatum and the cerebellum (PubMed:24658003).

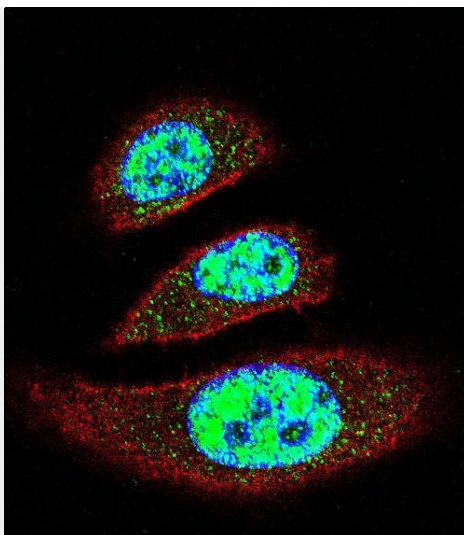
## EAPII Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

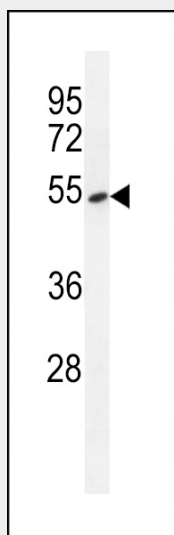
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## EAPII Antibody (C-term) - Images

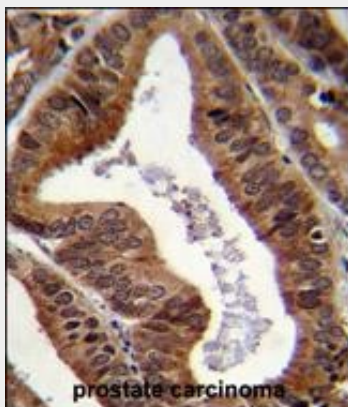




Confocal immunofluorescent analysis of EAPII Antibody (C-term)(Cat#AP11233b) with A549 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red). DAPI was used to stain the cell nuclear (blue).

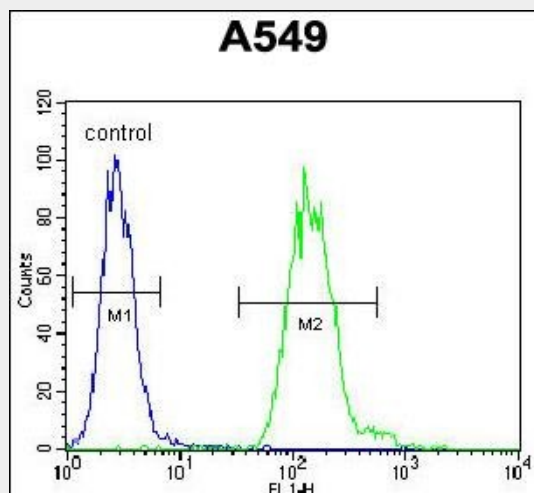


EAPII Antibody (C-term) (Cat. #AP11233b) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the EAPII antibody detected the EAPII protein (arrow).



EAPII Antibody (C-term) (Cat. #AP11233b) immunohistochemistry analysis in formalin fixed and paraffin embedded human prostate carcinoma followed by peroxidase conjugation of the

secondary antibody and DAB staining. This data demonstrates the use of EAPII Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



EAPII Antibody (C-term) (Cat. #AP11233b) flow cytometric analysis of A549 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

#### **EAPII Antibody (C-term) - Background**

This gene encodes 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.

#### **EAPII Antibody (C-term) - References**

- Shimada, M., et al. Hum. Genet. 128(4):433-441(2010)
- Wang, B.Y., et al. Mol. Biol. Rep. 37(6):2809-2816(2010)
- Iijima, M., et al. Neurology 73(17):1348-1352(2009)
- Cortes Ledesma, F., et al. Nature 461(7264):674-678(2009)
- Zhang, J.Q., et al. Biochem. Biophys. Res. Commun. 387(2):256-260(2009)