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EAPII Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP11233B

Specification

EAPII Antibody (C-term) - Product Information

Application	**IF, WB, IHC-P, FC,E**
Primary Accession	O95551
Other Accession	NP_057698
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
IF~~1:10~50
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50

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. Has also 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.

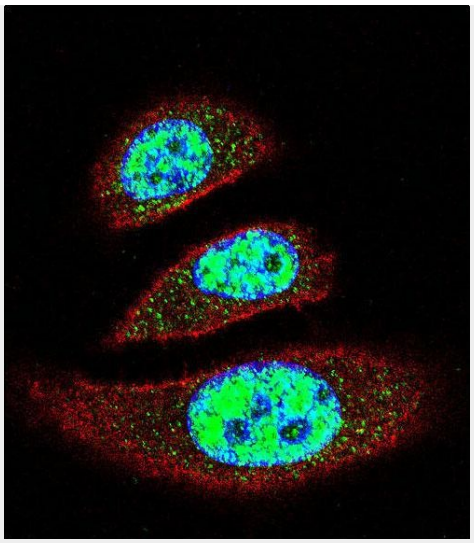
Tissue Location
Widely expressed (PubMed:10764746). Highly expressed in various brain regions, including the frontal and occipital lobes, the hippocampus, the striatum and the cerebellum (PubMed:24658003).

EAPII Antibody (C-term) - Protocols

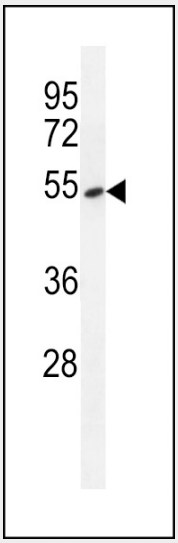
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

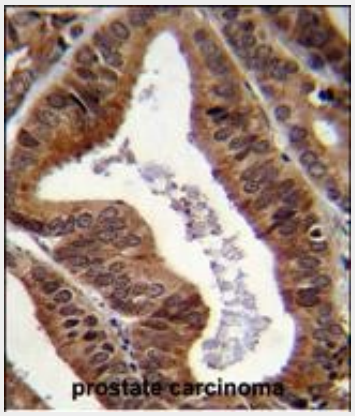
EAPII Antibody (C-term) - Images



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

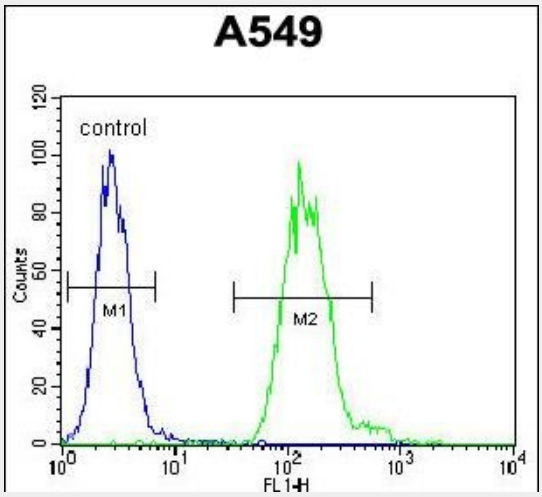


EAPII Antibody (C-term) (Cat. #AP11233b) western blot analysis in A549 cell line lysates (35ug/lane).This demonstrates the EAPII antibody detected the EAPII protein (arrow).



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)
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