

**TDP2 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV11247****Specification**

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**TDP2 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O95551</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	40930

**TDP2 Antibody - Additional Information****Gene ID** 51567

Positive Control	Western blot: HepG2 Cell lysate
Application & Usage	Western blot: ~0.5 µg/ml, ELISA: ~1:62,500 dilution, IHC.

**Other Names**

TTRAP, EAP2, AD022, EAPII, TTRAP, hTDP2, dJ30M3.3, RP1-30M3.3

**Target/Specificity**

TDP2

**Antibody Form**

Liquid

**Appearance**

Lyophilized powder

**Formulation**

Lyophilized in PBS buffer with 2% sucrose.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions****Precautions**

TDP2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**TDP2 Antibody - 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:<a href="http://www.uniprot.org/citations/27099339" target="\_blank">27099339</a>, PubMed:<a href="http://www.uniprot.org/citations/27060144" target="\_blank">27060144</a>). 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

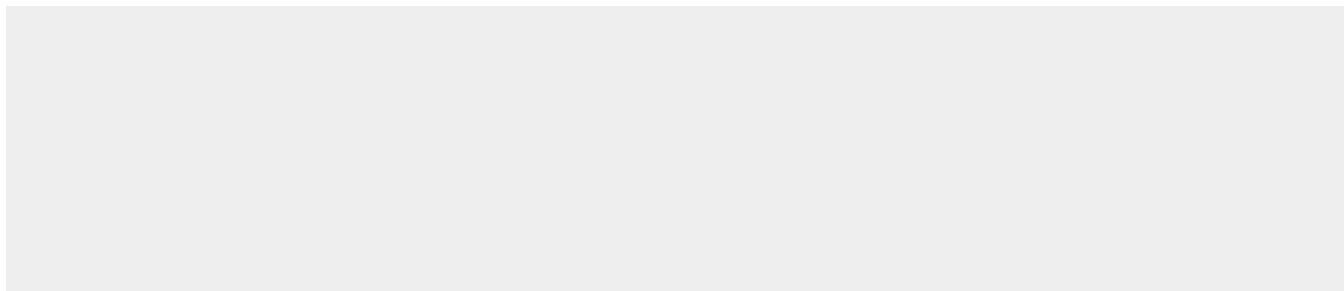
Widely expressed (PubMed:10764746). Highly expressed in various brain regions, including the frontal and occipital lobes, the hippocampus, the striatum and the cerebellum (PubMed:24658003).

## TDP2 Antibody - 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](#)

## TDP2 Antibody - Images





Western blot analysis of TTRAP in HepG2 Cell Lysate using TTRAP antibody at 0.5 ug/mL (12% gel).

#### **TDP2 Antibody - Background**

The TTRAP/TDP2 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.