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TDP1 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17653c

Specification

TDP1 Antibody (Center) - Product Information

Application	**WB,E**
Primary Accession	Q9NUW8
Other Accession	NP_001008744.1
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**68420**
Antigen Region	**212-239**

TDP1 Antibody (Center) - Additional Information

Gene ID 55775

Other Names
Tyrosyl-DNA phosphodiesterase 1, Tyr-DNA phosphodiesterase 1, 314-, TDP1

Target/Specificity
This TDP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 212-239 amino acids from the Central region of human TDP1.

Dilution
WB~~1:1000

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
TDP1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

TDP1 Antibody (Center) - Protein Information

Name TDP1

Function DNA repair enzyme that can remove a variety of covalent adducts from DNA through hydrolysis of a 3'-phosphodiester bond, giving rise to DNA with a free 3' phosphate. Catalyzes the

hydrolysis of dead- end complexes between DNA and the topoisomerase I active site tyrosine residue. Hydrolyzes 3'-phosphoglycolates on protruding 3' ends on DNA double-strand breaks due to DNA damage by radiation and free radicals. Acts on blunt-ended double-strand DNA breaks and on single-stranded DNA. Has low 3'exonuclease activity and can remove a single nucleoside from the 3'end of DNA and RNA molecules with 3'hydroxyl groups. Has no exonuclease activity towards DNA or RNA with a 3'phosphate.

Cellular Location
Nucleus. Cytoplasm

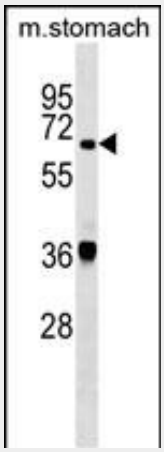
Tissue Location
Ubiquitously expressed. Similar expression throughout the central nervous system (whole brain, amygdala, caudate nucleus, cerebellum, cerebral cortex, frontal lobe, hippocampus, medulla oblongata, occipital lobe, putamen, substantia nigra, temporal lobe, thalamus, nucleus accumbens and spinal cord) and increased expression in testis and thymus.

TDP1 Antibody (Center) - 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

TDP1 Antibody (Center) - Images



TDP1 Antibody (Center) (Cat. #AP17653c) western blot analysis in mouse stomach tissue lysates (35ug/lane).This demonstrates the TDP1 antibody detected the TDP1 protein (arrow).

TDP1 Antibody (Center) - Background

The protein encoded by this gene is involved in repairing stalled topoisomerase I-DNA complexes by catalyzing the hydrolysis of the phosphodiester bond between the tyrosine residue of topoisomerase I and the 3-prime phosphate of DNA. This protein may

also remove glycolate from single-stranded DNA containing 3-prime phosphoglycolate, suggesting a role in repair of free-radical mediated DNA double-strand breaks. This gene is a member of the phospholipase D family and contains two PLD phosphodiesterase domains. Mutations in this gene are associated with the disease spinocerebellar ataxia with axonal neuropathy (SCAN1). While several transcript variants may exist for this gene, the full-length natures of only two have been described to date. These two represent the major variants of this gene and encode the same isoform.

TDP1 Antibody (Center) - References

Dexheimer, T.S., et al. Nucleic Acids Res. 38(7):2444-2452(2010)
Chiang, S.C., et al. Cell Cycle 9(3):588-595(2010)
Das, B.B., et al. EMBO J. 28(23):3667-3680(2009)
Zhou, T., et al. DNA Repair (Amst.) 8(8):901-911(2009)
Hoskins, J.M., et al. Pharmacogenomics 10(7):1139-1146(2009)