

TDP1 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a full length recombinant TDP1.

Catalog # AT4200a

Product Information

Application	WB, E
Primary Accession	Q9NUW8
Other Accession	BC015474
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG1 kappa
Clone Names	2A10-G2
Calculated MW	68420

Additional Information

Gene ID	55775
Other Names	Tyrosyl-DNA phosphodiesterase 1, Tyr-DNA phosphodiesterase 1, 314-, TDP1
Target/Specificity	TDP1 (AAH15474.1, 1 a.a. ~ 608 a.a) full-length recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	TDP1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

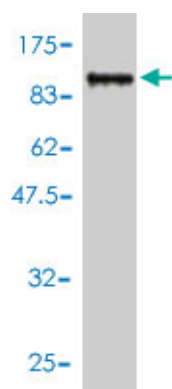
Background

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.

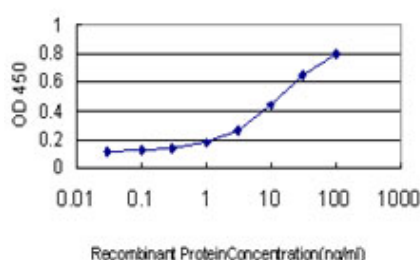
References

The DNA binding and 3'-end preferential activity of human tyrosyl-DNA phosphodiesterase. Dexheimer TS, et al. Nucleic Acids Res, 2010 Apr. PMID 20097655. TDP1 serine 81 promotes interaction with DNA ligase IIIalpha and facilitates cell survival following DNA damage. Chiang SC, et al. Cell Cycle, 2010 Feb 1. PMID 20009512. Optimal function of the DNA repair enzyme TDP1 requires its phosphorylation by ATM and/or DNA-PK. Das BB, et al. EMBO J, 2009 Dec 2. PMID 19851285. Pharmacodynamic genes do not influence risk of neutropenia in cancer patients treated with moderately high-dose irinotecan. Hoskins JM, et al. Pharmacogenomics, 2009 Jul. PMID 19604089. Tyrosyl-DNA phosphodiesterase and the repair of 3'-phosphoglycolate-terminated DNA double-strand breaks. Zhou T, et al. DNA Repair (Amst), 2009 Aug 6. PMID 19505854.

Images



Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (92.62 KDa) .



Detection limit for recombinant GST tagged TDP1 is approximately 0.1 ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.