

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.

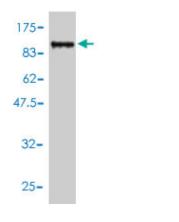
Background

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.

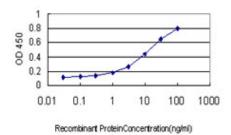
References

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 0.1ng/ml as a capture antibody.

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