abcam

Product datasheet

Anti-TDP1 antibody ab224822

3 Images

Overview

Product name	Anti-TDP1 antibody
Description	Rabbit polyclonal to TDP1
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, IP, WB
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human TDP1 aa 1-50. The exact sequence is proprietary. (NP_001008744.1). Database link: **Q9NUW8**
Positive control	WB: HeLa and HEK-293T whole cell lysates. IP: HeLa whole cell lysate. IHC-P: Human ovarian carcinoma tissue.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 6.8 Preservative: 0.09% Sodium azide Constituents: 0.1% BSA, Tris buffered saline
Purity	Immunogen affinity purified
Purification notes	ab224822 was affinity purified using an epitope specific to TDP1 immobilized on solid support.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab224822 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
IP		Use at 2-5 µg/mg of lysate.
WB		1/2000 - 1/10000. Predicted molecular weight: 68 kDa.

Target

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.

Tissue specificity 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.

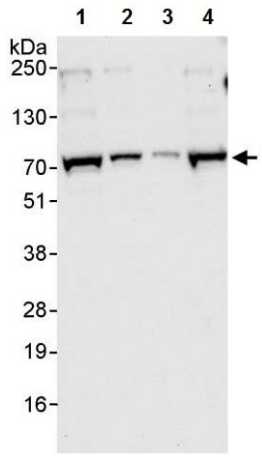
Involvement in disease Spinocerebellar ataxia, autosomal recessive, with axonal neuropathy

Sequence similarities Belongs to the tyrosyl-DNA phosphodiesterase family.

Post-translational modifications Phosphorylated on serine and/or threonine residues, but not on tyrosine residues.

Cellular localization Nucleus. Cytoplasm.

Images



Western blot - Anti-TDP1 antibody (ab224822)

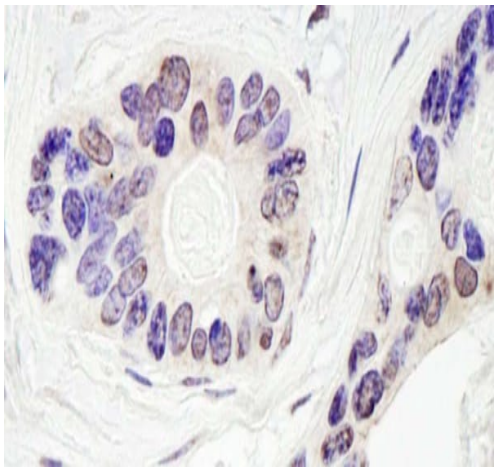
All lanes : Anti-TDP1 antibody (ab224822) at 0.04 µg/ml

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 50 µg
Lane 2 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 15 µg
Lane 3 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 5 µg
Lane 4 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate at 50 µg

Developed using the ECL technique.

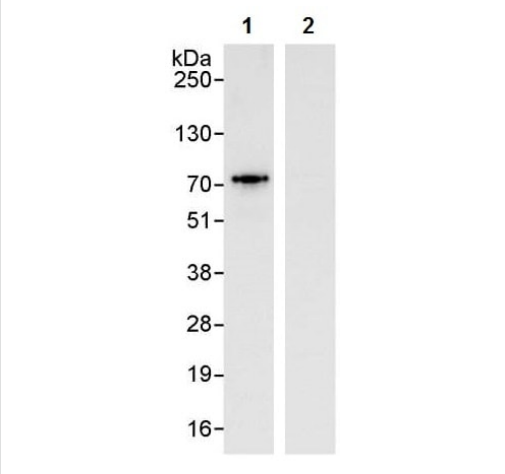
Predicted band size: 68 kDa

Exposure time: 10 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TDP1 antibody (ab224822)

Formalin-fixed, paraffin-embedded human ovarian carcinoma tissue stained for TDP1 using ab224822 at 1/1000 dilution in immunohistochemical analysis. Detection: DAB staining.



Immunoprecipitation - Anti-TDP1 antibody (ab224822)

TDP1 was immunoprecipitated from HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate (1 mg for IP, 20% of IP loaded) with ab224822 at 3 µg/mg lysate. Western blot was performed from the immunoprecipitate using ab224822 at 0.4 µg/ml.

Lane 1: ab224822 IP in HeLa whole cell lysate.

Lane 2: Control IgG IP in HeLa whole cell lysate.

Detection: Chemiluminescence with exposure time of 10 seconds.