

Product datasheet

Anti-NIPP1 antibody ab5300

1 References 1 Image

Overview

Product name	Anti-NIPP1 antibody
Description	Goat polyclonal to NIPP1
Host species	Goat
Tested applications	Suitable for: IHC-P, WB
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat, Cow, Dog 
Immunogen	Synthetic peptide corresponding to Human NIPP1 aa 114-127 (C terminal). Sequence: C-EAWPGKKPTPSLLI (Peptide available as ab23096)  Run BLAST with  Run BLAST with
Positive control	WB: HeLa, HepG2, Jurkat and NIH3T3 nuclear lysates. IHC-P: Human thymus tissue.
General notes	

This gene, through alternative splicing, encodes three different isoforms. Two of the protein isoforms encoded by this gene are specific inhibitors of type 1 serine/threonine protein phosphatases and can bind but not cleave RNA. The third protein isoform lacks the phosphatase inhibitory function but is a single-strand endoribonuclease comparable to RNase E of E. coli. This isoform requires magnesium for its function and cleaves specific sites in A+U-rich regions of RNA.

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. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 0.5% Tris buffered saline, 0.5% BSA
Purity	Immunogen affinity purified
Purification notes	Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.
Primary antibody notes	This gene, through alternative splicing, encodes three different isoforms. Two of the protein isoforms encoded by this gene are specific inhibitors of type 1 serine/threonine protein phosphatases and can bind but not cleave RNA. The third protein isoform lacks the phosphatase inhibitory function but is a single-strand endoribonuclease comparable to RNase E of E. coli. This isoform requires magnesium for its function and cleaves specific sites in A+U-rich regions of RNA.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab5300 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

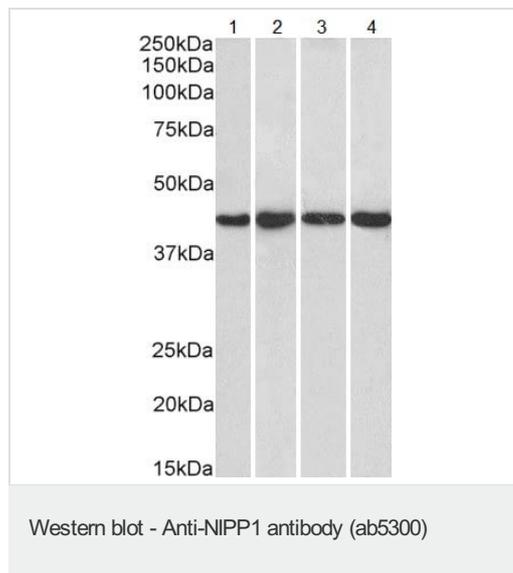
Application	Abreviews	Notes
IHC-P		Use a concentration of 2.5 - 3.8 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use a concentration of 0.3 - 1 µg/ml. Detects a band of approximately 40 kDa (predicted molecular weight: 40 kDa). 1 hour primary incubation is recommended for this product.

Target

Function	Inhibitor subunit of the major nuclear protein phosphatase-1 (PP-1). It has RNA-binding activity but does not cleave RNA and may target PP-1 to RNA-associated substrates. May also be involved in pre-mRNA splicing. Binds DNA and might act as a transcriptional repressor. Seems to be required for cell proliferation. Isoform Gamma is a site-specific single-strand endoribonuclease that cleaves single strand RNA 3' to purines and pyrimidines in A+U-rich regions. It generates 5'-phosphate termini at the site of cleavage. This isoform does not inhibit PP-1. May be implicated in mRNA splicing.
Tissue specificity	Ubiquitously expressed, with highest levels in heart and skeletal muscle, followed by brain, placenta, lung, liver and pancreas. Less abundant in kidney. The concentration and ratio between isoforms is cell-type dependent. Isoform Alpha (>90%) and isoform Beta were found in brain, heart and kidney. Isoform Gamma is mainly found in B-cells and T-lymphocytes, and has been found in 293 embryonic kidney cells.
Sequence similarities	Contains 1 FHA domain.

Domain	Has a basic N- and C-terminal and an acidic central domain.
Post-translational modifications	May be inactivated by phosphorylation on Ser-199 or Ser-204 (By similarity). Phosphorylated by Lyn in vitro on Tyr-264, and also on Tyr-335 in the presence of RNA.
Cellular localization	Nucleus. Nucleus speckle. Primarily, but not exclusively, nuclear and Cytoplasm. Found mainly in the cytoplasm.

Images



All lanes : Anti-NIPP1 antibody (ab5300) at 1 µg/ml

Lane 1 : HeLa nuclear lysate in RIPA buffer

Lane 2 : HepG2 nuclear lysate in RIPA buffer

Lane 3 : Jurkat nuclear lysate in RIPA buffer

Lane 4 : NIH3T3 nuclear lysate in RIPA buffer

Lysates/proteins at 35 µg per lane.

Predicted band size: 40 kDa

Primary incubation for 1 hour. Detected using chemiluminescence.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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