




Product datasheet

Anti-PIN4 antibody ab237619

3 Images

Overview

<b>Product name</b>	Anti-PIN4 antibody
<b>Description</b>	Rabbit polyclonal to PIN4
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Cow 
<b>Immunogen</b>	Recombinant full length protein corresponding to Human PIN4 aa 1-131. Sequence: MPPKKGKSGSGKAGKGGGAASGSDSADKKAQGPKGG GNAVKVRHILCEKHGK IMEAMEKLKSGMRFNEVAAQYSEDKARQGGDLGWMT RGSVMGPFQEAFA LPVSGMDKPVFTDPPVKTKFGYHIIMVEGRK  Database link: <a href="#">Q9Y237-1</a>   <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a>
<b>Positive control</b>	WB: HEK-293T, RAW 264.7 and HepG2 whole cell lysates; Mouse and rat liver tissue lysates. IHC-P: Human testis tissue. ICC/IF: HepG2 cells.

Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.03% Proclin Constituents: 50% Glycerol, PBS
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purity greater than 95%.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab237619** 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
WB		1/500 - 1/5000. Predicted molecular weight: 13 kDa.
ICC/IF		1/200 - 1/500.
IHC-P		1/500 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

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## Target

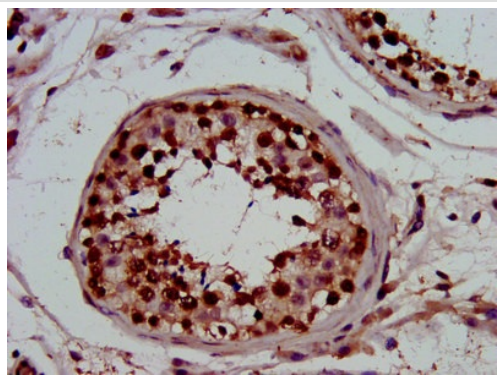
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<b>Function</b>	Isoform 1 is involved as a ribosomal RNA processing factor in ribosome biogenesis. Binds to tightly bent AT-rich stretches of double-stranded DNA. Isoform 2 binds to double-stranded DNA.
<b>Tissue specificity</b>	Isoform 2 is much more stable than isoform 1 (at protein level). Ubiquitous. Isoform 1 and isoform 2 are expressed in kidney, liver, blood vessel, brain, mammary gland, skeletal muscle, small intestine and submandibularis. Isoform 1 transcripts are much more abundant than isoform 2 in each tissue analyzed.
<b>Sequence similarities</b>	Belongs to the ppiC/parvulin rotamase family. PIN4 subfamily. Contains 1 PpiC domain.
<b>Domain</b>	The PPase domain enhances mitochondrial targeting.
<b>Post-translational modifications</b>	Phosphorylated. Isoform 1 phosphorylation occurs both in the nucleus and the cytoplasm. Isoform 1 phosphorylation at Ser-19 does not affect its PPase activity but is required for nuclear localization, and the dephosphorylation is a prerequisite for the binding to DNA. The unphosphorylated isoform 1 associates with the pre-rRNP complexes in the nucleus. Isoform 2 is sumoylated by SUMO2 and SUMO3.
<b>Cellular localization</b>	Mitochondrion. Mitochondrion matrix. Imported in a time- and membrane potential-dependent manner to the mitochondrial matrix, but without concomitant processing of the protein. Directed to mitochondria by a novel N-terminal domain that functions as non-cleavable mitochondrial targeting peptide and Nucleus > nucleolus. Cytoplasm > cytoskeleton > spindle. Cytoplasm. Colocalizes in the nucleolus during interphase and on the spindle apparatus during mitosis with NPM1.

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## Images

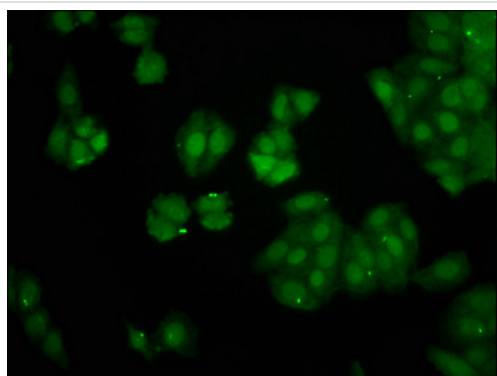
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PIN4 antibody (ab237619)

Paraffin-embedded human testis tissue stained for PIN4 using ab237619 at 1/800 dilution in immunohistochemical analysis.

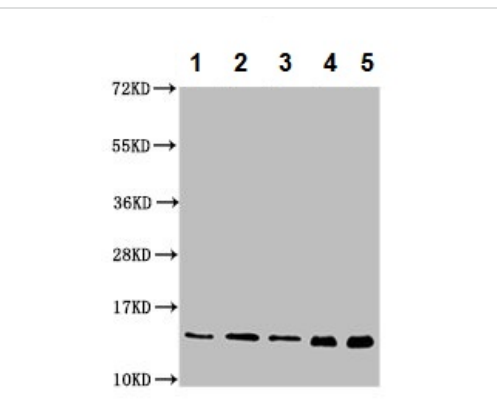
After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Immunocytochemistry/ Immunofluorescence - Anti-PIN4 antibody (ab237619)

HepG2 (human liver hepatocellular carcinoma cell line) cells stained for PIN4 (green) using ab237619 at 1/266 dilution in ICC/IF, followed by Alexa Fluor 488-conjugated Goat Anti-Rabbit IgG (H+L) secondary antibody.

The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. Counterstained with DAPI.



Western blot - Anti-PIN4 antibody (ab237619)

**All lanes** : Anti-PIN4 antibody (ab237619) at 1/500 dilution

**Lane 1** : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate

**Lane 2** : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate

**Lane 3** : HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate

**Lane 4** : Rat liver tissue lysate

**Lane 5** : Mouse liver tissue lysate

**Secondary**

**All lanes :** Goat polyclonal to rabbit IgG at 1/50000 dilution

**Predicted band size:** 13 kDa

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

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