abcam

Product datasheet

Anti-PRPS1 antibody ab154721

1 References 4 Images

Overview

Product name	Anti-PRPS1 antibody
Description	Rabbit polyclonal to PRPS1
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Recombinant fragment, corresponding to a region within amino acids 1-318 of Human PRPS1 (P60891)
Positive control	Recombinant Human PRPS1 protein (**ab92935**) can be used as a positive control in WB. 293T, Rat liver or Mouse kidney lysate, TOV-21G xenograft 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. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab154721 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 - 1/3000. Predicted molecular weight: 34 kDa.
IHC-P		1/100 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Alternatively Tris-EDTA buffer (pH8.0) may be used.

Target

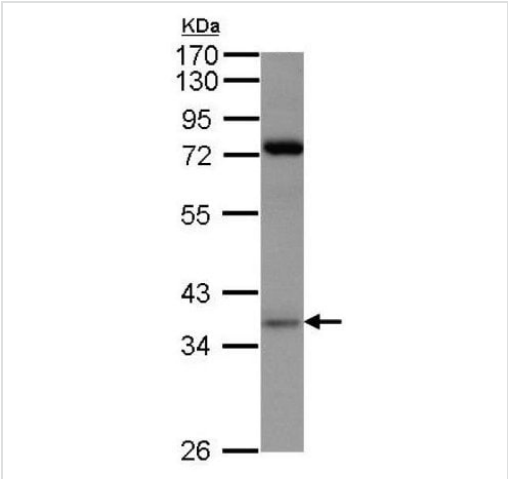
Function Catalyzes the synthesis of phosphoribosylpyrophosphate (PRPP) that is essential for nucleotide synthesis.

Pathway Metabolic intermediate biosynthesis; 5-phospho-alpha-D-ribose 1-diphosphate biosynthesis; 5-phospho-alpha-D-ribose 1-diphosphate from D-ribose 5-phosphate (route I): step 1/1.

Involvement in disease Defects in PRPS1 are the cause of phosphoribosylpyrophosphate synthetase superactivity (PRPS1 superactivity) [MIM:300661]; also known as PRPS-related gout. It is a familial disorder characterized by excessive purine production, gout and uric acid urolithiasis.
Defects in PRPS1 are the cause of Charcot-Marie-Tooth disease X-linked recessive type 5 (CMTX5) [MIM:311070]; also known as optic atrophy-polyneuropathy-deafness or Rosenberg-Chutorian syndrome. CMTX5 is a form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathies characterized by severely reduced motor nerve conduction velocities (NCVs) (less than 38m/s) and segmental demyelination and remyelination, and primary peripheral axonal neuropathies characterized by normal or mildly reduced NCVs and chronic axonal degeneration and regeneration on nerve biopsy.
Defects in PRPS1 are the cause of ARTS syndrome (ARTS) [MIM:301835]; also known as fatal ataxia X-linked with deafness and loss of vision. ARTS is a disorder characterized by mental retardation, early-onset hypotonia, ataxia, delayed motor development, hearing impairment, and optic atrophy. Susceptibility to infections, especially of the upper respiratory tract, can result in early death.
Defects in PRPS1 are the cause of deafness X-linked type 1 (DFNX1) [MIM:304500]; also known as congenital sensorineural deafness X-linked 2 (DFN2). It is a form of deafness characterized by progressive, severe-to-profound sensorineural hearing loss in males. Females manifest mild to moderate hearing loss.

Sequence similarities Belongs to the ribose-phosphate pyrophosphokinase family.

Images

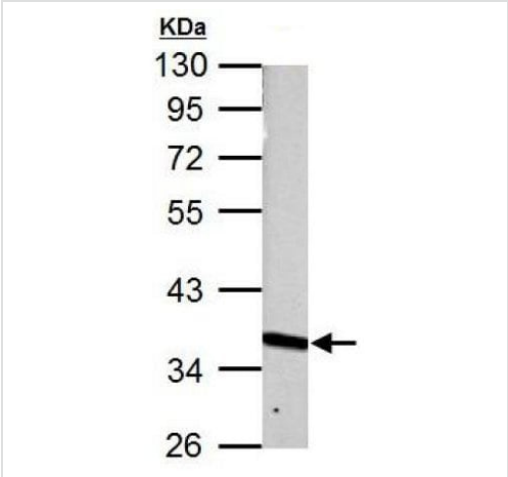


Western blot - Anti-PRPS1 antibody (ab154721)

Anti-PRPS1 antibody (ab154721) at 1/1500 dilution + 293T whole cell lysate at 30 µg

Predicted band size: 34 kDa

7.5% SDS PAGE

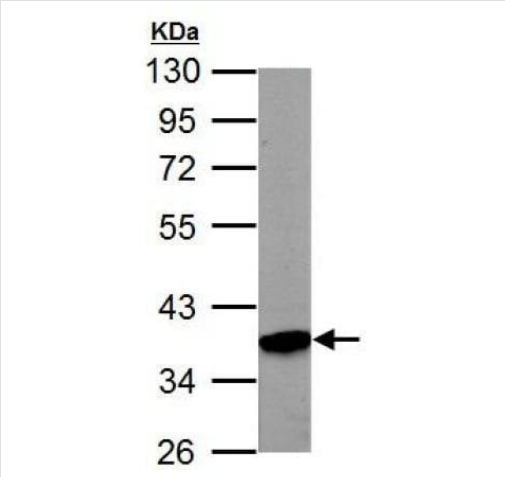


Western blot - Anti-PRPS1 antibody (ab154721)

Anti-PRPS1 antibody (ab154721) at 1/10000 dilution + Rat liver whole cell lysate at 50 µg

Predicted band size: 34 kDa

10% SDS PAGE

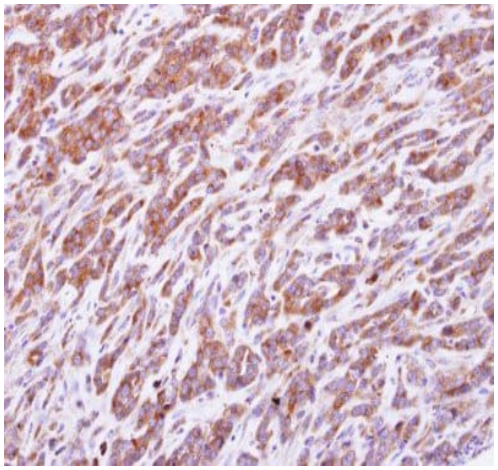


Western blot - Anti-PRPS1 antibody (ab154721)

Anti-PRPS1 antibody (ab154721) at 1/3000 dilution + Mouse kidney whole cell lysate at 50 µg

Predicted band size: 34 kDa

10% SDS PAGE



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PRPS1 antibody (ab154721)

Immunohistochemical analysis of paraffin embedded Human TOV-21G xenograft tissue labeling PRPS1 with ab154721 at a 1/500 dilution.

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