abcam

Product datasheet

Anti-PPP2R2B antibody ab264160

2 Images

Overview

Product name	Anti-PPP2R2B antibody
Description	Rabbit polyclonal to PPP2R2B
Host species	Rabbit
Tested applications	**Suitable for:** IP, WB
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat, Rabbit, Cow, Pig, Orangutan
Immunogen	Synthetic peptide within Human PPP2R2B aa 25-75. The exact sequence is proprietary. NP_004567.1 Database link: **Q00005**
Positive control	WB: HeLa, HEK-293T and TCMK whole cell lysate. IP: HeLa whole cell lysate.
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. Avoid freeze / thaw cycle.
Storage buffer	pH: 7 Preservative: 0.09% Sodium azide Constituent: Tris citrate/phosphate pH 7 to 8
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab264160 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
IP		Use at 2-5 µg/mg of lysate.
WB		1/2000 - 1/10000. Predicted molecular weight: 52 kDa.

Target

Function The B regulatory subunit might modulate substrate selectivity and catalytic activity, and also might direct the localization of the catalytic enzyme to a particular subcellular compartment. Within the PP2A holoenzyme complex, isoform 2 is required to promote proapoptotic activity (By similarity). Isoform 2 regulates neuronal survival through the mitochondrial fission and fusion balance.

Tissue specificity Brain.

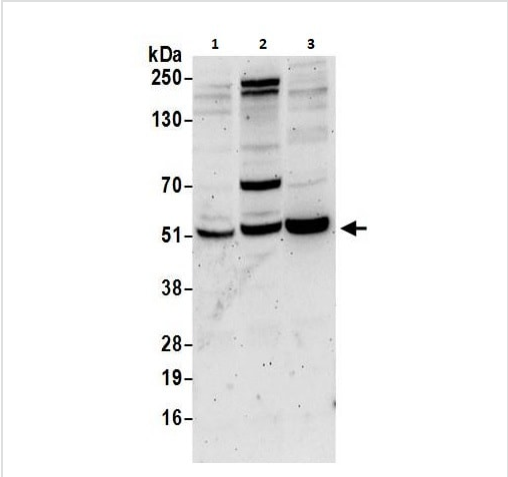
Involvement in disease Defects in PPP2R2B are the cause of spinocerebellar ataxia type 12 (SCA12) [MIM:604326]. Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA12 is an autosomal dominant cerebellar ataxia (ADCA).

Sequence similarities Belongs to the phosphatase 2A regulatory subunit B family.
Contains 7 WD repeats.

Domain The N-terminal 26 residues of isoform 2 constitute a cryptic mitochondrial matrix import signal with critical basic and hydrophobic residues, that is necessary and sufficient for targeting the PP2A holoenzyme to the outer mitochondrial membrane (OMM) and does not affect holoenzyme formation or catalytic activity.
The last WD repeat of isoform 2 constitutes a mitochondrial stop-transfer domain that confers resistance to the unfolding step process required for import and therefore prevents PPP2R2B matrix translocation and signal sequence cleavage.

Cellular localization Cytoplasm. Cytoplasm > cytoskeleton. Membrane and Cytoplasm. Mitochondrion. Mitochondrion outer membrane. Under basal conditions, localizes to both cytosolic and mitochondrial compartments. Relocalizes from the cytosolic to the mitochondrial compartment during apoptosis. Its targeting to the outer mitochondrial membrane (OMM) involves an association with import receptors of the TOM complex and is required to promote proapoptotic activity.

Images



Western blot - Anti-PPP2R2B antibody (ab264160)

All lanes : Anti-PPP2R2B antibody (ab264160) at 0.1 µg/ml

Lane 1 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 2 : HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 3 : TCMK (Mouse kidney epithelial cell line) whole cell lysate

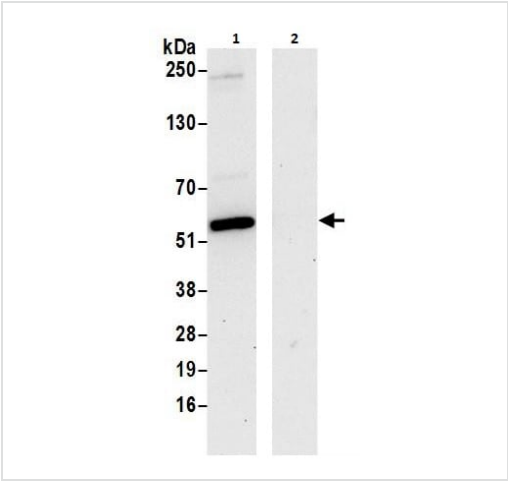
Lysates/proteins at 50 µg per lane.

Secondary
All lanes : Goat anti-Rabbit Light Chain HRP Conjugate

Predicted band size: 52 kDa

Exposure time: 3 minutes

4-20% SDS-PAGE



Immunoprecipitation - Anti-PPP2R2B antibody (ab264160)

PPP2R2B was immunoprecipitated from 1mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab264160 at 6 µg per reaction. Western blot was performed from the immunoprecipitate using ab264160 at 0.4 µg/ml.

Lane 1: ab264160 IP in HeLa whole cell lysate.
Lane 2: Control IgG.

Exposure time: 10 secs.

Cells prepared using NETN lysis buffer.

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