abcam

Product datasheet

Anti-PPP2R2B antibody ab16447

Overview

Product name	Anti-PPP2R2B antibody
Description	Rabbit polyclonal to PPP2R2B
Host species	Rabbit
Specificity	Minimal cross reactivity against 2A/B gamma.
Tested applications	**Suitable for:** WB
Species reactivity	**Reacts with:** Rat **Predicted to work with:** Mouse, Human
Immunogen	Synthetic peptide: GEEDIDTRKINNSF conjugated to KLH, corresponding to N terminal amino acids 2-14 of Rat PPP2R2B Run BLAST with Run BLAST with

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.08% Sodium Azide Constituents: PBS
Purity	IgG fraction
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab16447** 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 - 1/1000. Detects a band of approximately 53 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.

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