

Anti-PPP1R12A Antibody
Catalog # ABO10994**Specification**

Anti-PPP1R12A Antibody - Product Information

Application	WB
Primary Accession	O14974
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Protein phosphatase 1 regulatory subunit 12A(PPP1R12A) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-PPP1R12A Antibody - Additional Information

Gene ID 4659

Other Names

Protein phosphatase 1 regulatory subunit 12A, Myosin phosphatase-targeting subunit 1, Myosin phosphatase target subunit 1, Protein phosphatase myosin-binding subunit, PPP1R12A, MBS, MYPT1

Calculated MW

115281 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Cytoplasm . Along actomyosin filaments and stress fibers.

Tissue Specificity

Expressed in striated muscles, specifically in type 2a fibers (at protein level). .

Protein Name

Protein phosphatase 1 regulatory subunit 12A

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminus of human PPP1R12A (1-17aa MKMADAKQKRNEQLKRW), identical to the related rat and mouse sequences.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Contains 6 ANK repeats.

Anti-PPP1R12A Antibody - Protein Information

Name PPP1R12A ([HGNC:7618](#))

Function

Key regulator of protein phosphatase 1C (PPP1C). Mediates binding to myosin. As part of the PPP1C complex, involved in dephosphorylation of PLK1. Capable of inhibiting HIF1A-dependent suppression of HIF1A activity.

Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton, stress fiber. Note=Also along actomyosin filaments

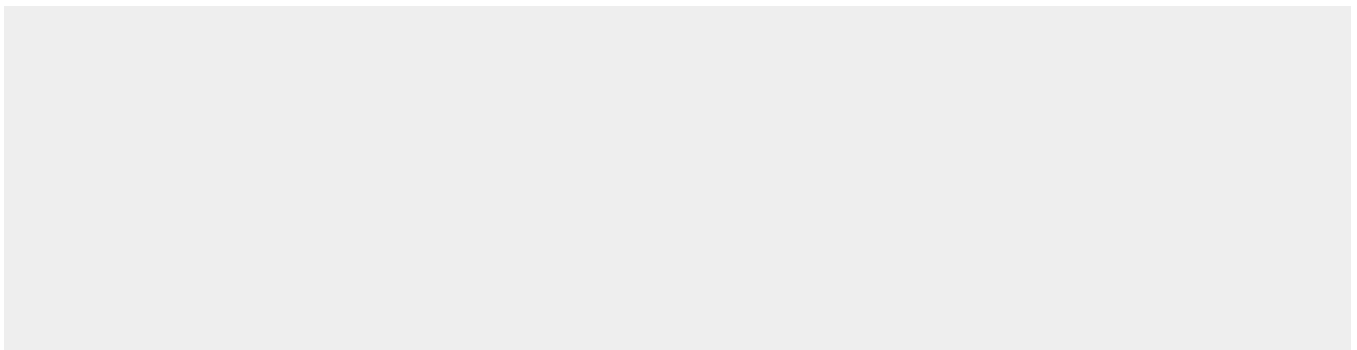
Tissue Location

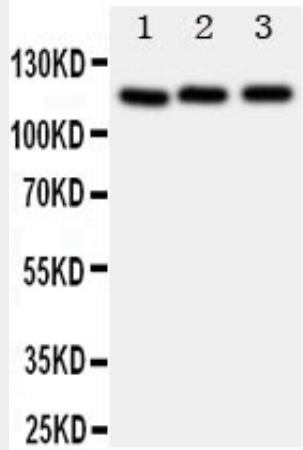
Expressed in striated muscles, specifically in type 2a fibers (at protein level).

Anti-PPP1R12A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-PPP1R12A Antibody - Images



Anti-PPP1R12A antibody, ABO10994, Western blotting All lanes: Anti PPP1R12A (ABO10994) at 0.5ug/ml Lane 1: Rat Liver Tissue Lysate at 50ug Lane 2: 293T Whole Cell Lysate at 40ug Lane 3: HELA Whole Cell Lysate at 40ug Predicted bind size: 115KD Observed bind size: 115KD

Anti-PPP1R12A Antibody - Background

PPP1R12A (Protein phosphatase 1 regulatory subunit 12A), also called MYPT1 (Myosin phosphatase target subunit 1), is an enzyme that in humans is encoded by the PPP1R12A gene. PPP1R12A is one of the subunits of myosin phosphatase. Sequencing analysis showed that human PPP1R12A contains 1,030 amino acids with a calculated molecular mass of approximately 115 kD. The PPP1R12A gene is mapped on 12q21.2-q21.3. PPP1R12A is the protein that regulates PP1 function in smooth muscle relaxation. The cellular MYPT1-PP1- δ -specific inhibitor CPI17 caused a loss of merlin function characterized by merlin phosphorylation, Ras activation, and transformation. Jin et al. concluded that PPP1R12A and its substrate merlin are part of a previously undescribed tumor suppressor cascade that can be hindered in 2 ways, by mutation of the NF2 gene and by upregulation of the oncoprotein CPI17.