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Anti-PPP1R12A Antibody

Catalog # ABO10994

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.

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
Application Details	Western blot, 0.1-0.5 □g/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). .
Source	Eukaryota
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 r˚Constitution, 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.

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 HIF1AN-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).

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-delta -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.

Images

Anti-PPP1R12A antibody, ABO10994, Western blottingAll lanes: Anti PPP1R12A (ABO10994) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: 293T Whole Cell Lysate at 40ugLane 3: HELA Whole Cell Lysate at 40ugPredicted bind size: 115KDObserved bind size: 115KD