

Human CPI-17/PPP1R14A antibody

Catalog Number: APP0832

PRODUCT INFORMATION

Catalog number

APP0832

Clone No.

4H10

Product type

Monoclonal Antibody

UnitProt No.

Q96A00

NCBI Accession No.

NP_150281

Alternative Names

Regulatory subunit 14A, Regulatory (inhibitor) subunit 14A CPI 17, Regulatory (inhibitor) subunit 14A, Protein phosphatase 1 regulatory subunit 14A, Protein phosphatase 1 regulatory (inhibitor) subunit 14A, Protein phosphatase 1, PPP1R14A, PPP1INL, PKC potentiated inhibitory protein of PP1, CPI-17, CPI 17 alpha

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human PPP1R14A (1-147aa) purified from E. coli

Isotype

IgG2a kappa

Purification Note

By protein-G affinity chromatography

Application

ELISA, WB, ICC/IF

Usage

The antibody has been tested by ELISA, Western blot and ICC/IF analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

PPP1R14A (Protein phosphatase 1 regulatory subunit 14A) is a phosphorylation-dependent inhibitory protein for smooth muscle myosin phosphate. Myosin phosphatase can reverse MYL (myosin light chain) phosphorylation to induce a state of relaxation. However, during agonist-induced contraction at constant Ca²⁺ concurrent inhibition of myosin phosphatase leads to increases in MYL phosphorylation and tension. These calcium-independent increases in myosin phosphorylation and tension are termed calcium sensitization.

General References

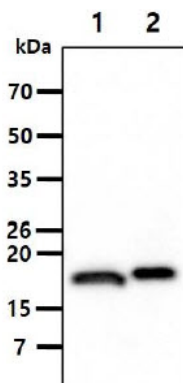
Hamaguchi., et al. (2000) Biochem. Biophys. Res Commun. 274(3):825-30.

Eto M., et al. (1997) FEBS Lett. 410(2-3):356-60.

Lartey I., et al. (2007) Biol Reprod. 76(6):971-82.

DATA

Western blot analysis (WB)

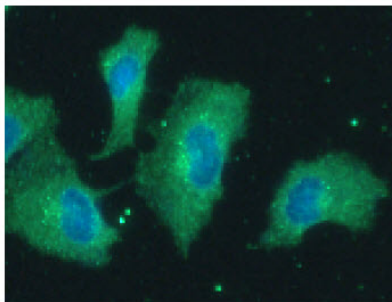


The Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PPP1R14A antibody (1:500). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1. : A549 cell lysate

Lane 2. : NIH-3T3 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of PPP1R14A in A549 cells. The cell was stained with APP0832 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).