

Monoclonal anti-human PPP1R14A antibody (clone 4H10)

Mouse IgG_{2a}, κ

Cat. No. IBAPP0832

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

NCBI Accession No.: NP_150281

Isotype: Mouse IgG_{2a} heavy chain and κ light chain

Clone: Anti-human PPP1R14A mAb, clone 4H10, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human PPP1R14A protein.

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.

Concentration: 1 mg/ml

Form: Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

Storage: Can be stored at +4°C. For long term storage, aliquot and store at -20°C. Avoid repeated freezing and thawing cycles.

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

Application: ELISA, WB, Flow cytometry, ICC/IF

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



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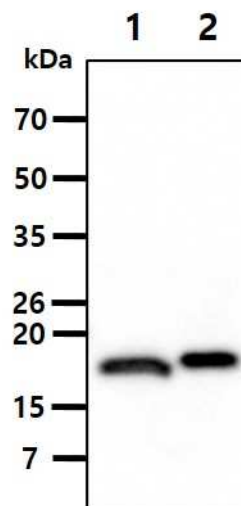
Product information

Western blot analysis

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.

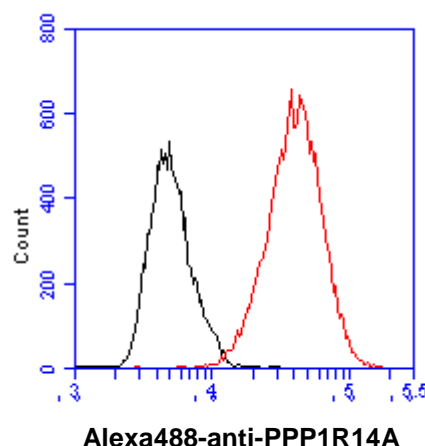
Lane 1. : A549 cell lysate

Lane 2. : NIH-3T3 cell lysate



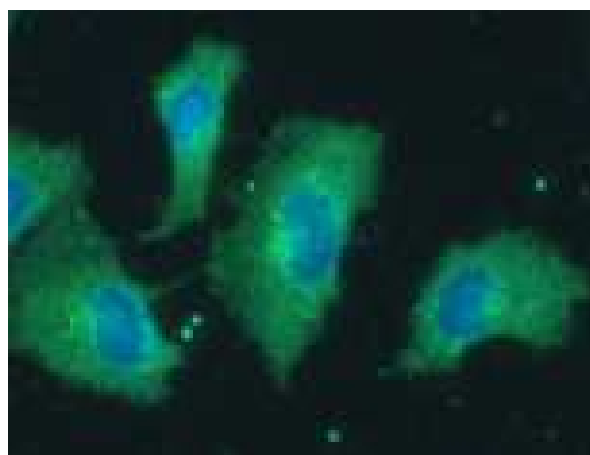
Flow cytometry

Flow cytometry analysis of PPP1R14A in HeLa cell line, staining at 2-5ug for 1x10⁶ cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).



ICC/IF analysis

ICC/IF analysis of PPP1R14A in A549 cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human PPP1R14A antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



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.

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