Human Pin1 antibody

Catalog Number: API0622

PRODUCT INFORMATION

Catalog number
API0622

Clone No.
3G8

Product type
Monoclonal Antibody

UnitProt No.
Q13526

NCBI Accession No.
NP_006212

Alternative Names
Protein (peptidyl-prolyl cis/trans isomerase) NIMA-interacting 1, PIN1, Peptidyl-prolyl cis-trans isomerase NIMA-interacting 1, EC 5.2.1.8, Rotamase Pin1, PPIase Pin1, DOD, uBL5, PIN1, PPIase, EC 5.2.1.8, Rotamase Pin1, PPIase Pin1, Peptidyl-prolyl cis-trans isomerase NIMA-interacting 1

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 Pin1 (1-163aa) purified from E. coli

Isotype
IgG1 kappa

Purification Note
By protein-G affinity chromatography

Application
ELISA, WB, FACS

Usage
The antibody has been tested by ELISA, Western blot and FACS 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

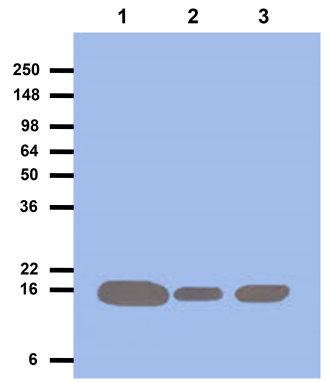
Human Pin 1 is a peptidyl-prolyl cis/trans isomerase (PPIase) that interacts with NIMA and essential for cell cycle regulation. Pin1 is nuclear PPIase containing a WW protein interaction domain, and is structurally and functionally related to Ess1/Ptf1, an essential protein in budding yeast. PPIase activity is necessary for Ess1/Pin1 function in yeast. Pin1 is thus an essential PPIase that regulates mitosis presumably by interacting with NIMA and attenuating its mitosis-promoting activity. Substrates of Pin1 include the mitotic regulators (Cdc25 phosphatase and NIMA, PLk I, Wee, and Myt1 kinases), several transcription factors likebeta-Catenin, c-Jun, and the tumor suppressor protein p53, and some specific proteins like the RNA Pol II, the cytoskeleton protein tau, and the G1/S protein Cyclin D1.

General References

Wulf GM, et al., (2002) J Biol. Chem. 277(50):47976-47979.
Hamdane M, et al., (2002) J Mol Neurosci. 19(3):275-287.
Zheng H, et al., (2002) Nature 419(6909):853-857.
Lu KP. et al., (1996) Nature 380(6574):544-547.
Campbell HD, et al., (1997) Genomics 44(2):157-162

DATA

Western blot analysis (WB)



The cell lysates(50ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Pin1 antibody (1:500). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1.: 293T cell lysate
Lane 2.: HeLa cell lysate
Lane 3: Jurkat cell lysate

Flow cytometry (FACS)

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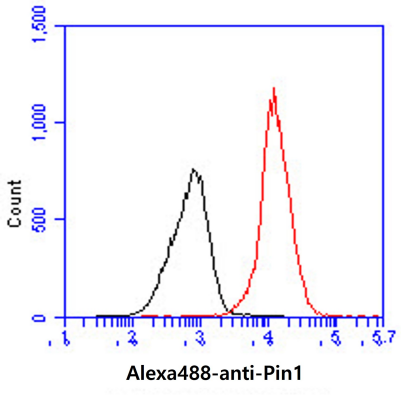
Catalog Number: API0622



Flow cytometry analysis of Pin1 in Jurkat cell line, staining at 2-5ug for 1x10^6cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).