

Anti-Pin1 Antibody Picoband® (monoclonal, 5E5)

Catalog Number: M00467-1

About PIN1

Peptidyl-prolyl cis-trans isomerase NIMA-interacting 1, also called DOD, is an enzyme that in humans is encoded by the PIN1 gene. It is mapped to 19p13.2. The enzyme binds to a subset of proteins and thus plays a role as a post phospho PIN1rol in regulating protein function. Studies have shown that the deregulation of PIN1 may play a pivotal role in various diseases. Notably, the up-regulation of PIN1 may be implicated in certain cancers, and the down-regulation of Pin1 may be implicated in Alzheimer's disease. Inhibitors of PIN1 may have therapeutic implications for cancer and immune disorders. PIN1 activity regulates the outcome of proline-directed kinase (e.g. MAPK, CDK or GSK3) signalling and consequently regulates cell proliferation (in part through control of cyclin D1 levels and stability) and cell survival. PIN1 also has an essential role in maintaining cell proliferation and regulating cyclin D1 function.

Overview

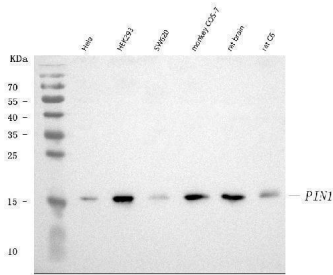
Product Name	Anti-Pin1 Antibody Picoband® (monoclonal, 5E5)
Reactive Species	Human, Monkey, Rat
Description	Boster Bio Anti-Pin1 Antibody Picoband® (monoclonal, 5E5) catalog # M00467-1. Tested in Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Monkey, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	Flow Cytometry, IF, ICC, WB
Clonality	Monoclonal 5E5
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Mouse
Uniprot ID	Q13526

Technical Details

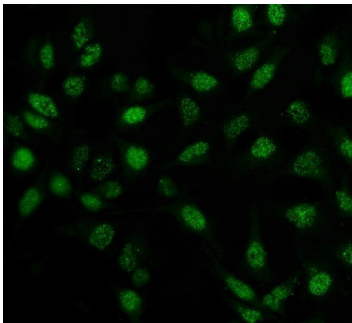
Immunogen	E.coli-derived human Pin1 recombinant protein (Position: M1-E163). Human Pin1 shares 95% amino acid (aa) sequence identity with mouse Pin1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	IgG2b

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 µg/ml, Human, Monkey, Rat Immunocytochemistry/Immunofluorescence, 5 µg/ml, Human Flow Cytometry (Fixed), 1-3 µg/1x10 ⁶ cells, Human

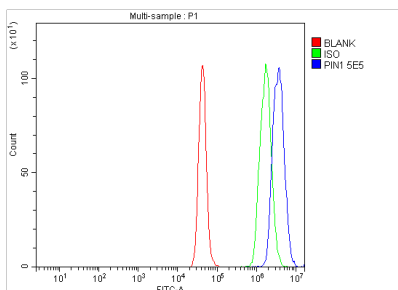
Anti-Pin1 Antibody Picoband® (monoclonal, 5E5) (M00467-1) Images



Western blot analysis of Pin1 using anti-Pin1 antibody (M00467-1). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human HEK293 whole cell lysates, Lane 3: human SW620 whole cell lysates, Lane 4: monkey COS-7 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat C6 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Pin1 antigen affinity purified monoclonal antibody (Catalog # M00467-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Pin1 at approximately 18 kDa. The expected band size for Pin1 is at 18 kDa.



IF analysis of Pin1 using anti-Pin1 antibody (M00467-1). Pin1 was detected in an immunocytochemical section of HeLa cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL mouse anti-Pin1 Antibody (M00467-1) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of U87 cells using anti-Pin1 antibody (M00467-1). Overlay histogram showing U87 cells stained with M00467-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Pin1 Antibody (M00467-1, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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