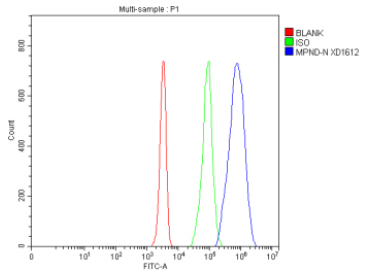
MPND Antibody / MPN domain-containing protein (FY12007)

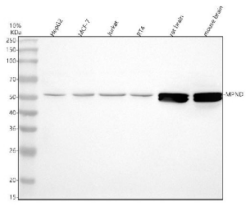
Catalog No.	Formulation	Size
FY12007	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q8N594
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This MPND antibody is available for research use only.



Flow Cytometry analysis of Jurkat cells using anti-MPND antibody. Overlay histogram showing Jurkat cells stained with (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 rabbit anti-MPND antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of MPND using anti-MPND antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HepG2 whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human Jurkat whole cell lysates, Lane 4: human RT-4 whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: mouse brain tissue 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 rabbit anti-MPND antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A specific band was detected for MPND at approximately 51 kDa. The expected band size for MPND is at 51 kDa.

Description

MPND antibody detects MPN domain-containing protein, encoded by the MPND gene. MPN domain-containing protein is a nuclear protein with poorly defined functions but is thought to participate in chromatin regulation, protein interactions, and ubiquitin-like modification processes. MPND antibody provides researchers with a useful reagent to study nuclear function, gene regulation, and protein-protein interaction networks.

MPN domain-containing protein belongs to a family of proteins characterized by the Mpr1-Pad1 N-terminal (MPN) domain, which is present in many regulators of the ubiquitin-proteasome system. Research using MPND antibody has shown that it localizes to the nucleus and may contribute to the organization of transcriptional complexes. While its precise molecular role remains under investigation, its structural domain suggests functions in ubiquitin signaling and protein turnover.

Studies with MPND antibody have demonstrated that the protein interacts with chromatin and associates with regulators of gene expression. These interactions suggest that MPN domain-containing protein modulates transcription indirectly through protein scaffolding or chromatin remodeling. This places MPND at the intersection of nuclear structure and gene regulation.

Dysregulation of MPND expression has been observed in certain cancers. Research using MPND antibody has linked altered expression to tumor progression, possibly through changes in nuclear architecture and transcriptional regulation. These findings indicate that MPN domain-containing protein may function as a modulator of cellular growth and survival pathways.

MPND antibody is commonly applied in western blotting, immunohistochemistry, and immunofluorescence. Western blotting detects expression in cultured cells and tissues, immunohistochemistry identifies nuclear expression patterns, and immunofluorescence highlights nuclear localization. These approaches make MPND antibody valuable for exploratory studies into nuclear biology.

Application Notes

Optimal dilution of the MPND antibody should be determined by the researcher.

Immunogen

E.coli-derived human MPND recombinant protein (Position: R239-S471) was used as the immunogen for the MPND antibody.

Storage

After reconstitution, the MPND antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.