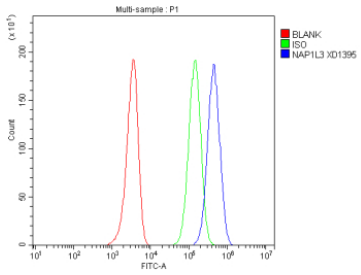
NAP1L3 Antibody / Nucleosome assembly protein 1 like 3 (FY12042)

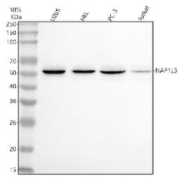
Catalog No.	Formulation	Size
FY12042	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human
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	Q99457
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This NAP1L3 antibody is available for research use only.



Flow Cytometry analysis of HEL cells using anti-NAP1L3 antibody. Overlay histogram showing HEL 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-NAP1L3 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 NAP1L3 using anti-NAP1L3 antibody. Lane 1: human U2OS whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human PC-3 whole cell lysates, Lane 4: human Jurkat 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 rabbit anti-NAP1L3 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 enhanced chemiluminescent. A specific band was detected for NAP1L3 at approximately 58 kDa. The expected band size for NAP1L3 is at 58 kDa.

Description

NAP1L3 antibody detects Nucleosome assembly protein 1 like 3, encoded by the NAP1L3 gene. Nucleosome assembly protein 1 like 3 is a histone chaperone that regulates nucleosome dynamics and chromatin organization. NAP1L3 antibody provides researchers with a specific reagent for studying chromatin remodeling, transcriptional regulation, and epigenetics.

Nucleosome assembly protein 1 like 3 belongs to the NAP family of proteins that shuttle histones between the cytoplasm and the nucleus. Research using NAP1L3 antibody has shown that it facilitates the deposition of histones H2A and H2B onto DNA, a process essential for nucleosome formation. This activity supports both DNA replication and transcription, where nucleosome remodeling is required.

Studies with NAP1L3 antibody have revealed that this protein not only mediates histone assembly but also prevents inappropriate histone-DNA interactions by acting as a histone storage factor. This regulation maintains chromatin accessibility and ensures that transcriptional programs proceed accurately. The ability of NAP1L3 to regulate histone exchange links it to transcriptional activation and repression pathways.

Dysregulation of NAP1L3 has been associated with cancer and developmental disorders. Research using NAP1L3 antibody has shown that altered expression disrupts chromatin balance, leading to misregulated gene expression. Overexpression has been observed in certain tumors, where enhanced histone assembly promotes cell proliferation. Conversely, reduced expression impairs differentiation, underscoring its importance in development.

NAP1L3 antibody is commonly used in western blotting, immunohistochemistry, and chromatin immunoprecipitation. Western blotting quantifies histone chaperone levels, immunohistochemistry identifies nuclear localization, and chromatin immunoprecipitation maps chromatin interactions. These methods make NAP1L3 antibody valuable for epigenetic and transcriptional studies.

By supplying validated NAP1L3 antibody reagents, NSJ Bioreagents supports studies into chromatin remodeling, transcriptional regulation, and disease. Detection of Nucleosome assembly protein 1 like 3 provides researchers with insight into how histone chaperones regulate gene expression and cellular development.

Application Notes

Optimal dilution of the NAP1L3 antibody should be determined by the researcher.

Immunogen

E.coli-derived human NAP1L3 recombinant protein (Position: K77-K506) was used as the immunogen for the NAP1L3 antibody.

Storage

After reconstitution, the NAP1L3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at

-20oC. Avoid repeated freezing and thawing.