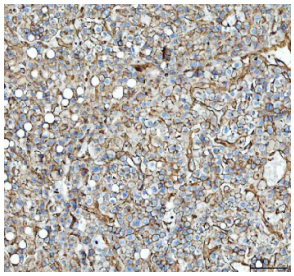
Annexin A2 Antibody / ANXA2 Membrane Binding Protein Antibody (R30414)

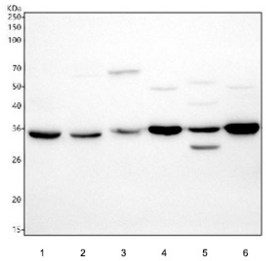
Catalog No.	Formulation	Size
R30414	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

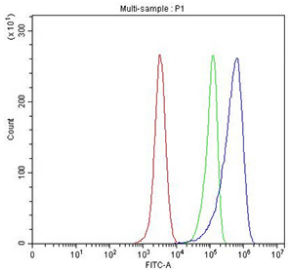
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P07355
Localization	Cell membrane, cytoplasm
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 2-5ug/ml Flow cytometry: 1-3ug/million cells
Limitations	This Annexin A2 Antibody / ANXA2 Membrane Binding Protein Antibody is available for research use only.



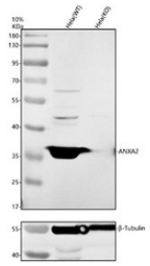
Annexin A2 Antibody in Human Liver Cancer IHC. Immunohistochemistry testing of Annexin A2 Antibody / ANXA2 Membrane Binding Protein Antibody in FFPE human liver cancer tissue. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 8 EDTA for 20 min followed by cooling prior to staining. HRP-secondary and DAB detection reveal widespread membranous and cytoplasmic immunoreactivity in the tested tumor tissue.



Annexin A2 Antibody in Human, Mouse and Rat WB. Western blot testing of Annexin A2 Antibody / ANXA2 Membrane Binding Protein Antibody in 1) human HeLa cervical cancer cells, 2) human placenta, 3) rat kidney, 4) rat C6 glioma cells, 5) mouse kidney and 6) mouse NIH 3T3 fibroblast cell lysates. A prominent band is observed at approximately 36-39 kDa across the tested samples, consistent with the predicted molecular weight of Annexin A2 (~39 kDa). Additional immunoreactive bands are visible in some samples.



Annexin A2 Antibody in Human HeLa Cervical Cancer Cells FACS. Flow cytometry testing of fixed human HeLa cervical cancer cells with Annexin A2 Antibody / ANXA2 Membrane Binding Protein Antibody at 1 ug/million cells following blocking with goat serum. Cells alone are shown in red, the isotype control in green and Annexin A2 antibody staining in blue. A clear fluorescence shift is observed with the ANXA2 antibody compared with both controls.



Annexin A2 Antibody WB Analysis of Human HeLa WT and ANXA2 KO Cells. Western blot analysis of wild-type (WT) HeLa cell lysate (lane 1) and ANXA2 knockout (KO) HeLa cell lysate (lane 2) using ANXA2 Membrane Binding Protein Antibody. A prominent band is detected at approximately 36 kDa in WT cells, consistent with the expected molecular weight of Annexin A2 (35-40 kDa). The band is markedly reduced in ANXA2 KO cells, supporting antibody specificity. Samples containing 30 ug of protein per lane were separated by 10% SDS-PAGE, and the primary antibody was used at 0.5 ug/ml. Beta-tubulin served as the loading control.

Description

Annexin A2 Antibody / ANXA2 Membrane Binding Protein Antibody recognizes Annexin A2, a calcium-dependent phospholipid-binding protein encoded by the ANXA2 gene. Annexin A2 belongs to the annexin family of proteins and is found in the cytoplasm and in association with cellular membranes. The protein binds acidic phospholipids in a calcium-dependent manner and interacts with F-actin, allowing it to participate in membrane organization and connections between the plasma membrane and actin cytoskeleton.

Annexin A2 participates in several membrane-associated processes, including endocytosis, exocytosis, vesicle trafficking and membrane domain organization. Its interactions with F-actin and membrane phospholipids also contribute to cytoskeletal remodeling and cell migration. These properties have made ANXA2 an important research target for investigating the interface between membrane dynamics, cytoskeletal organization and cellular signaling.

ANXA2 can function as a monomer or associate with S100A10 to form the Annexin A2/S100A10 heterotetramer, commonly called AIIt. Formation of this complex alters the properties of both proteins and contributes to their membrane-associated functions. The complex has been studied extensively in fibrinolysis and plasmin regulation, with current evidence indicating that S100A10 provides the principal binding sites for plasminogen and tissue plasminogen activator, while Annexin A2 stabilizes S100A10 and facilitates its localization at the cell surface.

Because of its roles in membrane organization, cytoskeletal remodeling and regulation of the Annexin A2/S100A10 complex, altered ANXA2 expression has been investigated in cancer, angiogenesis, cardiovascular biology and immune responses. Its involvement in cell migration and extracellular proteolytic processes has generated particular interest in studies of tumor invasion and metastasis.

This rabbit polyclonal antibody was generated against an amino acid sequence from the middle region of human Annexin A2 and is antigen affinity purified. It recognizes human, mouse and rat ANXA2. NSJ Bioreagents provides this Annexin

A2 Antibody for research into membrane biology, cytoskeletal dynamics and ANXA2-associated cellular processes. An ANXA2 Membrane Binding Protein Antibody can support studies of Annexin A2 expression and its relationship with membrane and cytoskeletal organization.

Explore our Signal Transduction Antibodies page for additional reagents targeting proteins involved in membrane-associated signaling, cytoskeletal regulation and cellular responses.

Application Notes

The stated application concentrations are suggested starting amounts. Titration of the Annexin A2 Antibody / ANXA2 Membrane Binding Protein Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

An amino acid sequence from the middle region of human Annexin A2 (RAEDGSVIDYELIDQDARDLY) was used as the immunogen for this Annexin A2 antibody.

Storage

After reconstitution, the Annexin A2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Annexin A2 antibody, ANXA2 antibody, Annexin II antibody, Annexin 2 antibody, Lipocortin II antibody, Calpactin I heavy chain antibody

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