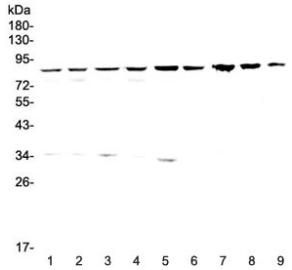
CD2AP Antibody / Cytoskeletal Adapter Protein Antibody (RQ4204)

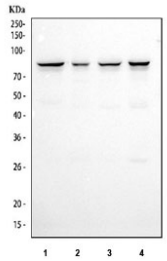
Catalog No.	Formulation	Size
RQ4204	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

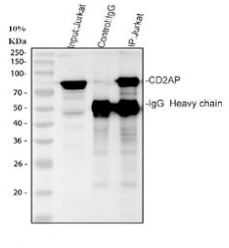
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q9Y5K6
Applications	Western blot: 1-2ug/ml Flow cytometry: 1-3ug/million cells Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml ELISA: 0.1-0.5ug/ml Immunoprecipitation: 2ug antibody/500ug lysate
Limitations	This CD2AP Antibody / Cytoskeletal Adapter Protein Antibody is available for research use only.



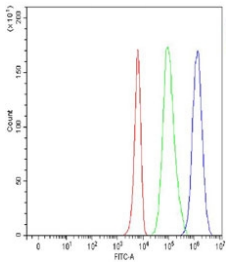
CD2AP Antibody / Cytoskeletal Adapter Protein Antibody Human, Mouse and Rat WB. Western blot analysis of 1) human HeLa, 2) human 293T, 3) human MCF7, 4) human COLO320, 5) human 22RV1, 6) human SK-OV-3, 7) rat stomach, 8) rat liver, and 9) mouse liver lysates using CD2AP Antibody / Cytoskeletal Adapter Protein Antibody. A specific immunoreactive band is detected at approximately 71-80 kDa across the tested human, rat, and mouse samples, consistent with the predicted molecular weight range of CD2AP. These results demonstrate reliable cross-species detection of CD2AP, a multifunctional adaptor protein involved in cytoskeletal organization, receptor endocytosis, and intracellular signaling.



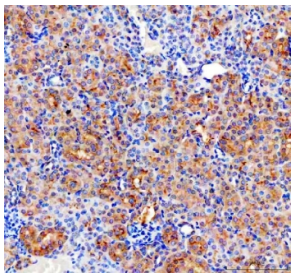
CD2AP Antibody / Cytoskeletal Adapter Protein Antibody Human Cell Line WB. Western blot analysis of 1) human Jurkat, 2) human A431, 3) human HeLa, and 4) human K562 cell lysates using CD2AP Antibody / Cytoskeletal Adapter Protein Antibody. A specific immunoreactive band is detected at approximately 71-80 kDa in all four cell lines, consistent with the predicted molecular weight range of CD2AP. These results demonstrate reliable detection of CD2AP, a multifunctional adaptor protein that links membrane receptors to the actin cytoskeleton and regulates cell adhesion, receptor endocytosis, and intracellular signaling.



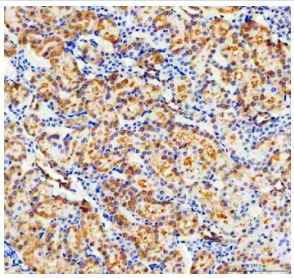
CD2AP Antibody / Cytoskeletal Adapter Protein Antibody Immunoprecipitation Validation. Immunoprecipitation of CD2AP from human Jurkat whole cell lysate using CD2AP Antibody / Cytoskeletal Adapter Protein Antibody, followed by western blot detection. Lane 1: Input Jurkat whole cell lysate. Lane 2: Control IgG immunoprecipitation (negative control). Lane 3: CD2AP antibody immunoprecipitation. A specific band corresponding to CD2AP is detected at approximately 71-80 kDa in the input and immunoprecipitated sample, while no corresponding CD2AP band is observed in the control IgG lane. The IgG heavy chain is visible at approximately 50 kDa, confirming successful immunoprecipitation.



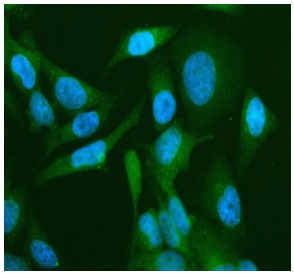
CD2AP Antibody / Cytoskeletal Adapter Protein Antibody Human K562 Flow Cytometry. Flow cytometric analysis of fixed and permeabilized human K562 cells using CD2AP Antibody / Cytoskeletal Adapter Protein Antibody at 1 ug/10^6 cells. Cells were blocked with goat serum prior to staining. Red: unstained cells. Green: isotype control. Blue: CD2AP antibody. The distinct rightward shift of the CD2AP antibody signal relative to the isotype control demonstrates specific intracellular detection of CD2AP in K562 cells.



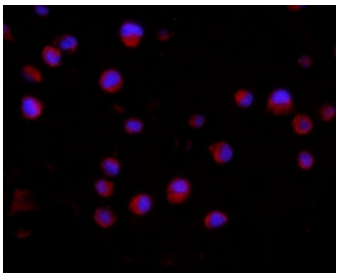
CD2AP Antibody / Cytoskeletal Adapter Protein Antibody Mouse Kidney IHC. Immunohistochemical staining of FFPE mouse kidney tissue using CD2AP Antibody / Cytoskeletal Adapter Protein Antibody. CD2AP expression is detected predominantly in glomerular podocytes and renal tubular epithelial cells, consistent with its established role in maintaining the slit diaphragm, regulating actin cytoskeletal organization, and supporting glomerular filtration barrier integrity. Heat-induced epitope retrieval was performed in pH 8.0 EDTA buffer prior to staining. Immunoreactivity was visualized using an HRP/DAB detection system.



CD2AP Antibody / Cytoskeletal Adapter Protein Antibody Rat Kidney IHC. Immunohistochemical staining of FFPE rat kidney tissue using CD2AP Antibody / Cytoskeletal Adapter Protein Antibody. CD2AP expression is detected predominantly in glomerular podocytes and renal tubular epithelial cells, consistent with its essential role in maintaining slit diaphragm architecture, regulating actin cytoskeletal dynamics, and preserving glomerular filtration barrier function. Heat-induced epitope retrieval was performed in pH 8.0 EDTA buffer prior to staining. Immunoreactivity was visualized using an HRP/DAB detection system.



CD2AP Antibody / Cytoskeletal Adapter Protein Antibody HeLa Immunofluorescence. Immunofluorescent staining of FFPE human HeLa cells using CD2AP Antibody / Cytoskeletal Adapter Protein Antibody (green) with DAPI nuclear counterstain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH 6.0 citrate buffer for 20 minutes prior to staining. Cells were incubated with the primary antibody at 5 ug/ml. CD2AP displays predominantly cytoplasmic staining, consistent with its role as a cytoskeletal adaptor protein that links membrane-associated signaling complexes to the actin cytoskeleton and regulates receptor trafficking and cell adhesion.



CD2AP Antibody / Cytoskeletal Adapter Protein Antibody K562 Immunofluorescence. Immunofluorescent staining of FFPE human K562 cells using CD2AP Antibody / Cytoskeletal Adapter Protein Antibody (red) with DAPI nuclear counterstain (blue). Heat-induced epitope retrieval was performed by steaming sections in pH 6.0 citrate buffer for 20 minutes prior to staining. Cells were incubated with the primary antibody at 2 ug/ml. CD2AP displays predominantly cytoplasmic staining, consistent with its function as a cytoskeletal adaptor protein involved in actin organization, receptor endocytosis, and intracellular signaling.

Description

CD2AP Antibody / Cytoskeletal Adapter Protein Antibody recognizes CD2-associated protein (CD2AP), an adaptor molecule that coordinates cytoskeletal organization, membrane trafficking, and intracellular signaling through multiple protein-protein interaction domains. Originally identified as a binding partner of the T-cell surface receptor CD2, CD2AP is now recognized as a multifunctional scaffold that links membrane proteins to the actin cytoskeleton and regulates signaling pathways controlling cell adhesion, migration, endocytosis, and cytoskeletal dynamics. Because of these diverse functions, CD2AP Antibody / Cytoskeletal Adapter Protein Antibody is widely used to investigate immune signaling, kidney biology, epithelial organization, and receptor trafficking.

CD2AP contains three SH3 domains that mediate interactions with numerous signaling and cytoskeletal proteins, allowing it to assemble multiprotein complexes at the plasma membrane. In podocytes of the renal glomerulus, CD2AP is an essential component of the slit diaphragm, where it stabilizes interactions between nephrin, actin filaments, and associated signaling proteins to preserve the integrity of the glomerular filtration barrier. CD2AP also participates in growth factor receptor internalization, vesicle trafficking, and regulation of actin remodeling, enabling cells to coordinate membrane dynamics with changes in morphology and motility.

Altered CD2AP expression or function has been linked to several human diseases, including focal segmental glomerulosclerosis, chronic kidney disease, neurodegenerative disorders, and multiple cancers. Genetic variants affecting CD2AP have also been associated with increased susceptibility to late-onset Alzheimer's disease, highlighting its broader importance in neuronal maintenance and intracellular trafficking. Because CD2AP integrates signaling, cytoskeletal organization, and membrane transport, it has become an important biomarker for studies of renal physiology, immune cell activation, neurobiology, and mechanisms regulating cell architecture.

NSJ Bioreagents' CD2AP Antibody / Cytoskeletal Adapter Protein Antibody supports investigations into cytoskeletal organization, receptor endocytosis, cell adhesion, podocyte biology, intracellular signaling, immune function, and neurodegenerative disease. Reliable detection of CD2AP enables researchers to study one of the central adaptor proteins that coordinates communication between membrane receptors and the actin cytoskeleton.

Explore additional antibodies involved in neuronal signaling, cytoskeletal organization, and neurodegenerative disease research on our Neuroscience Antibodies page.

Application Notes

Optimal dilution of the CD2AP Antibody / Cytoskeletal Adapter Protein Antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids K253-K337 was used as the immunogen for the CD2AP antibody.

Storage

After reconstitution, the CD2AP 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

CD2AP antibody, CD2 Associated Protein antibody, CD2AP Adapter Protein antibody, Cytoskeletal Adapter Protein antibody, CD2-Associated Protein antibody, SH3 Domain Adapter Protein antibody

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