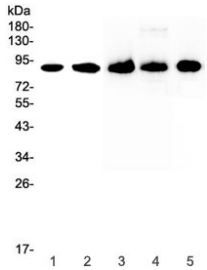
CD44 Antibody for FACS Jurkat / T Cell Surface Marker Antibody (R32994)

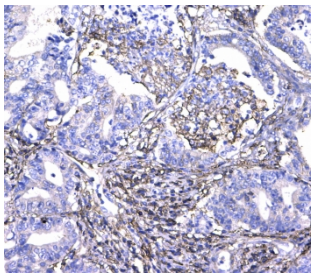
Catalog No.	Formulation	Size
R32994	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

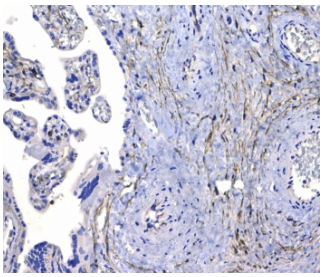
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P16070
Localization	Cell surface, cytoplasmic
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml Immunofluorescence (FFPE) : 1-3ug/ml Flow Cytometry : 1-3ug/10^6 cells Direct ELISA : 0.1-0.5ug/ml
Limitations	This CD44 Antibody for FACS Jurkat / T Cell Surface Marker Antibody is available for research use only.



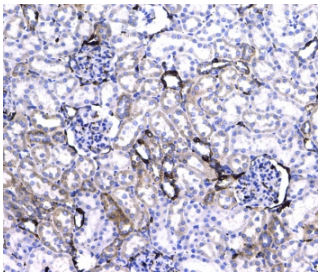
CD44 Antibody Multi-Species WB. Western blot analysis of CD44 / CD44 antigen expression in multiple lysates using rabbit polyclonal antibody at 0.5 ug/ml. Lane 1: human HeLa cell lysate, Lane 2: human 22RV1 cell lysate, Lane 3: rat spleen lysate, Lane 4: rat thymus lysate, Lane 5: mouse spleen lysate. A band is detected at approximately 80-95 kDa, consistent with the predicted molecular weight of CD44 (CD44 / CD44 antigen). CD44 is a glycosylated transmembrane protein, and the observed band range reflects variable glycosylation of the extracellular domain across species and tissue types. The consistent detection across human, rat, and mouse samples supports CD44 expression in both epithelial and lymphoid tissues and aligns with its role as a broadly expressed cell surface adhesion molecule.



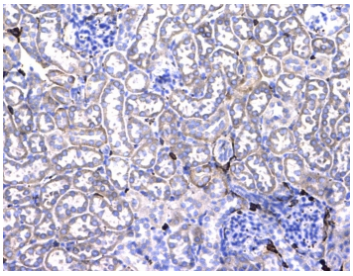
CD44 Antibody Colon Cancer IHC. Immunohistochemistry analysis of CD44 / CD44 antigen expression in FFPE human colon cancer tissue using rabbit polyclonal antibody at 1 ug/ml. Membranous HRP-DAB brown staining is observed in tumor epithelial cells, outlining cell borders and highlighting cell surface localization consistent with CD44 expression. The staining pattern demonstrates heterogeneous intensity across tumor regions and supports its use for evaluating CD44 distribution, tumor cell organization, and microenvironment-associated expression in colorectal carcinoma tissue. Heat induced epitope retrieval was performed by steaming tissue sections in pH 6 citrate buffer for 20 min followed by cooling prior to testing.



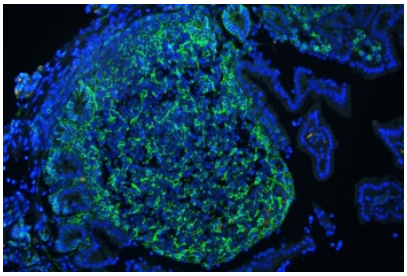
CD44 Antibody Placenta IHC. Immunohistochemistry analysis of CD44 / CD44 antigen expression in FFPE human placental tissue using rabbit polyclonal antibody at 1 ug/ml. Membranous HRP-DAB brown staining is observed in trophoblast and stromal-associated cells, highlighting cell surface localization consistent with CD44 expression. The staining pattern demonstrates regional variation between villous structures and stromal compartments and supports its use for evaluating CD44 distribution and cellular organization in placental tissue. Heat induced epitope retrieval was performed by steaming tissue sections in pH 6 citrate buffer for 20 min followed by cooling prior to testing.



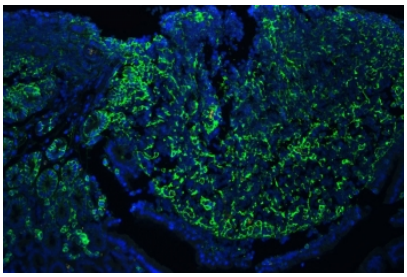
CD44 Antibody Rat Kidney IHC. Immunohistochemistry analysis of CD44 / CD44 antigen expression in FFPE rat kidney tissue using rabbit polyclonal antibody at 1 ug/ml. Membranous HRP-DAB brown staining is observed in tubular epithelial cells and along vascular-associated structures, highlighting cell surface localization consistent with CD44 expression. The staining pattern demonstrates regional variation across renal compartments, including tubular and interstitial areas, and supports its use for evaluating CD44 distribution and cellular organization in kidney tissue. Heat induced epitope retrieval was performed by steaming tissue sections in pH 6 citrate buffer for 20 min followed by cooling prior to testing.



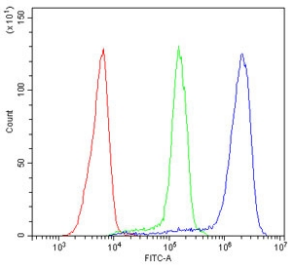
CD44 Antibody Mouse Kidney IHC. Immunohistochemistry analysis of CD44 / CD44 antigen expression in FFPE mouse kidney tissue using rabbit polyclonal antibody at 1 ug/ml. Membranous HRP-DAB brown staining is observed in tubular epithelial cells and along vascular-associated structures, highlighting cell surface localization consistent with CD44 expression. The staining pattern demonstrates widespread distribution across renal tubules with additional signal in interstitial regions, supporting its use for evaluating CD44 expression and cellular organization in kidney tissue. Heat induced epitope retrieval was performed by steaming tissue sections in pH 6 citrate buffer for 20 min followed by cooling prior to testing.



GNB1 Antibody Mouse Lymph Tissue IF. Immunofluorescence analysis of GNB1 expression in FFPE mouse lymph tissue using antibody at 1 ug/ml (green) with DAPI nuclear stain (blue). Diffuse cytoplasmic and membrane-associated fluorescence is observed throughout lymphoid cell populations, highlighting widespread GNB1 expression within the tissue. The staining pattern demonstrates dense cellular distribution consistent with lymphoid architecture and supports its use for visualizing GNB1 localization in immune cell-rich environments. Heat induced epitope retrieval was performed by steaming tissue sections in pH 6 citrate buffer for 20 min.



GNB1 Antibody Mouse Lymph Tissue IF. Immunofluorescence analysis of GNB1 expression in FFPE mouse lymph tissue using antibody at 1 ug/ml (green) with DAPI nuclear stain (blue). Strong cytoplasmic fluorescence is observed in densely packed lymphoid cell populations, with signal distributed throughout the tissue and highlighting cellular architecture within lymphoid regions. The staining pattern supports GNB1 localization in immune cell-rich environments and is consistent with its role in intracellular signaling. Heat induced epitope retrieval was performed by steaming tissue sections in pH 6 citrate buffer for 20 min.



CD44 Antibody Jurkat Cell FACS. Flow cytometry analysis of CD44 / CD44 antigen expression in human Jurkat cells using rabbit polyclonal antibody at 1 ug per 10^6 cells following blocking with goat sera. The CD44 antibody-stained population (blue) demonstrates a pronounced right-shift compared to cells alone (red) and isotype control (green), indicating strong cell surface expression of CD44. The clear separation between populations supports its use for identifying, gating, and quantifying CD44-positive T cell populations in flow cytometry assays.

Description

CD44 antigen (CD44) is a transmembrane glycoprotein of the CD44 family that functions as a receptor for hyaluronic acid and mediates cell adhesion, migration, and extracellular matrix interactions. It is widely expressed on the surface of immune cells, including T lymphocytes, where it plays a central role in cell-cell communication and interaction with the extracellular environment. CD44 Antibody for FACS Jurkat / T Cell Surface Marker Antibody is designed to detect CD44 expression in flow cytometry applications, enabling quantitative analysis of cell surface localization and identification of CD44-positive T cell populations.

CD44 antibody, also referred to as CD44 antigen antibody or Hermes antigen antibody, recognizes a cell surface glycoprotein involved in lymphocyte adhesion, activation, and trafficking. In T cells, CD44 expression is associated with cellular activation state, migration capacity, and interaction with extracellular matrix components. Jurkat cells, a human T lymphocyte-derived cell line, provide a well-established model for studying T cell receptor signaling and surface marker expression. Detection of CD44 in Jurkat cells supports evaluation of receptor accessibility and surface distribution in flow cytometry-based assays.

Functionally, CD44 mediates binding to hyaluronic acid and other extracellular matrix components, facilitating T cell adhesion, migration, and localization within lymphoid and peripheral tissues. These interactions are critical for immune surveillance and coordinated immune responses. In flow cytometry applications, CD44 staining typically produces a clearly right-shifted fluorescence population relative to negative controls, reflecting robust cell surface expression. This CD44 Antibody for FACS Jurkat is particularly suited for identifying, gating, and quantifying CD44-positive T cell populations, as well as for monitoring changes in expression associated with activation or experimental treatment.

CD44 expression is broadly observed across immune cell types, but its characterization in Jurkat cells provides a focused and reproducible system for studying T cell-specific surface marker dynamics. Detection of CD44 in this model supports research into immune activation, adhesion biology, and receptor-mediated signaling pathways. The use of a rabbit polyclonal antibody enhances sensitivity for detecting cell surface CD44 across heterogeneous cell populations in flow cytometry assays.

Structurally, CD44 is encoded on chromosome 11p13 and consists of an extracellular ligand-binding domain, a transmembrane segment, and a cytoplasmic tail involved in intracellular signaling and cytoskeletal interactions. Alternative splicing generates multiple CD44 isoforms that retain core functional properties while contributing to biological diversity. An antibody targeting CD44 is suitable for detecting membrane-associated expression and studying T cell surface markers in flow cytometry and related research applications.

This CD44 antibody is part of a broader CD44 antibody panel offered by NSJ Bioreagents.

Application Notes

Optimal dilution of the CD44 Antibody for FACS Jurkat / T Cell Surface Marker Antibody should be determined by the researcher.

Immunogen

A recombinant human partial protein corresponding to amino acids Q21-H259 was used as the immunogen for the CD44 antibody.

Storage

After reconstitution, the CD44 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

CD44 antibody, CD44 FACS antibody, CD44 T cell marker antibody, CD44 antigen antibody, Hermes antigen antibody

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