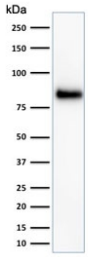
CD44 Antibody / Cancer Stem Cell Marker Antibody [clone HCAM/918] (V3011)

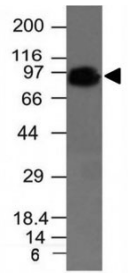
Catalog No.	Formulation	Size
V3011-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3011-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3011SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3011IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

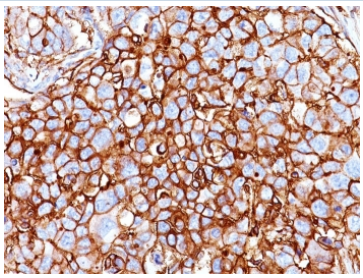
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	HCAM/918
Purity	Protein G affinity chromatography
UniProt	P16070
Localization	Cell surface, cytoplasmic
Applications	Western Blot : 1-2ug/ml Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 0.25-0.5ug/ml for 30 min at RT
Limitations	This CD44 Antibody / Cancer Stem Cell Marker Antibody is available for research use only.



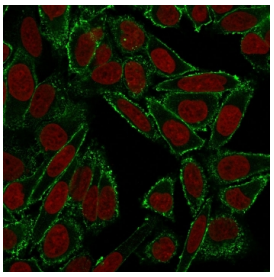
CD44 Antibody Human Cell Line WB. Western blot analysis of CD44 / CD44 antigen expression in human HeLa cell lysate using Cancer Stem Cell Marker Antibody clone HCAM/918. A band is detected at approximately 80-95 kDa, consistent with the predicted molecular weight of CD44 (CD44 / CD44 antigen). CD44 is a glycosylated transmembrane protein, and the observed band reflects the core protein with variation in apparent molecular weight due to glycosylation of the extracellular domain. The detected signal supports CD44 expression in HeLa cells and is consistent with its role as a cell surface marker associated with heterogeneous cell populations.



CD44 Antibody Human Prostate Cancer Cell WB. Western blot analysis of CD44 / CD44 antigen expression in human DU145 cell lysate using Cancer Stem Cell Marker Antibody clone HCAM/918. 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 reflects the core protein with migration variability due to glycosylation of the extracellular domain. The detected signal supports CD44 expression in DU145 cells and aligns with its role as a marker associated with heterogeneous tumor cell populations.



CD44 Antibody Breast Carcinoma IHC. Immunohistochemistry analysis of CD44 / CD44 antigen expression in FFPE human breast carcinoma tissue using Cancer Stem Cell Marker Antibody clone HCAM/918. Membranous HRP-DAB brown staining is observed in tumor epithelial cells, outlining cell borders and highlighting cell surface localization. The staining pattern demonstrates heterogeneous intensity across the tumor, with subsets of strongly positive cells within the broader population, consistent with enrichment of CD44-expressing subpopulations. This pattern supports its use for evaluating tumor heterogeneity, cellular organization, and identification of stem-like cell populations in breast carcinoma tissue.



CD44 Antibody HeLa Cell IF. Immunofluorescence analysis of CD44 / CD44 antigen expression in human HeLa cells using Cancer Stem Cell Marker Antibody clone HCAM/918 (green) with Reddot nuclear stain (red). Prominent membrane-associated fluorescence is observed outlining cell borders, consistent with CD44 localization at the cell surface, with additional punctate cytoplasmic signal. The staining pattern highlights heterogeneous signal intensity across the cell population and supports its use for evaluating cell surface distribution and identification of CD44-expressing subpopulations in cultured cells.

Description

CD44 antigen (CD44), also known as homing cell adhesion molecule (HCAM), is a transmembrane glycoprotein that functions as a receptor for hyaluronic acid and mediates cell adhesion, migration, and extracellular matrix interactions. It is widely expressed on epithelial and immune cells, where it contributes to cell surface communication and tissue organization. CD44 Antibody / Cancer Stem Cell Marker Antibody (clone HCAM/918) is designed to detect CD44 expression in formalin-fixed, paraffin-embedded tissues and related applications, with particular relevance for identifying cancer stem cell-associated subpopulations and evaluating cellular heterogeneity within tumor samples.

CD44 antibody, also referred to as HCAM antibody or Hermes antigen antibody, recognizes a cell surface glycoprotein that is strongly associated with cancer stem cell biology across multiple tumor types. CD44-positive subpopulations have been reported to exhibit enhanced capacity for self-renewal, differentiation, and tumor initiation, making CD44 a widely used marker for identifying stem-like cells within heterogeneous tumor environments. Clone HCAM/918 is supported by multi-application testing and published data, providing a robust tool for investigating CD44 expression in the context of tumor hierarchy and cellular subpopulation analysis.

Functionally, CD44 mediates interactions with hyaluronic acid and other extracellular matrix components, supporting cell adhesion, migration, and microenvironmental signaling. These processes are particularly relevant in cancer stem cells, which depend on niche interactions and spatial positioning within tumor tissue to maintain stem-like properties. In immunohistochemistry applications, CD44 staining typically presents as membranous HRP-DAB signal outlining cell borders, with heterogeneous intensity across tumor regions. Distinct subsets of strongly positive cells may be observed within broader tumor populations, consistent with enrichment of CD44-expressing subpopulations. This CD44 Antibody clone HCAM/918 is particularly suited for identifying cellular subsets, evaluating tumor heterogeneity, and assessing spatial organization of stem-like populations.

CD44 expression is frequently detected in tumor epithelial cells and may be enriched in specific regions associated with active growth, differentiation, or microenvironmental interaction. Variability in staining intensity and distribution can reflect differences in cellular state, organization, and functional role within the tumor. Detection of CD44 in these contexts supports studies of tumor biology, cellular hierarchy, and the relationship between stem-like populations and overall tissue structure.

Structurally, CD44 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 isoforms, while glycosylation contributes to structural and functional diversity. An antibody targeting CD44 is suitable for detecting membrane-associated expression and studying cancer stem cell-associated biology, cellular heterogeneity, and tissue organization in a wide range of 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 / Cancer Stem Cell Marker Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 min.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Recombinant human protein was used as the immunogen for the CD44 antibody.

Storage

Store the CD44 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD44 antibody, CD44 cancer stem cell antibody, HCAM antibody, CD44 antigen antibody, Hermes antigen antibody

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