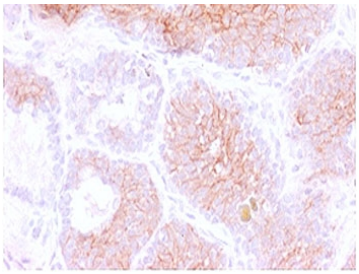
CD44v3 Antibody for IHC Tumor Microenvironment / Cell Interaction Marker Antibody [clone CDLA44v3-1] (V3769)

Catalog No.	Formulation	Size
V3769-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3769-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3769SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CDLA44v3-1
Purity	Protein G affinity chromatography
UniProt	P16070
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD44v3 Antibody for IHC Tumor Microenvironment / Cell Interaction Marker Antibody is available for research use only.



CD44v3 Antibody for IHC Prostate Carcinoma. Immunohistochemistry analysis of CD44 variant 3 / CD44 expression in FFPE human prostate carcinoma using mouse monoclonal antibody clone CDLA44v3-1. Membranous HRP-DAB brown staining is observed in malignant epithelial cells, outlining tumor glands and highlighting cell surface localization consistent with CD44v3-associated cell interaction and extracellular matrix engagement. The staining pattern supports its role in tumor microenvironment organization and cell-stroma interface within prostate carcinoma tissue. Heat induced epitope retrieval was performed by steaming tissue sections in pH 9 10mM Tris with 1mM EDTA buffer for 10-20 min.

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 localized primarily to the cell membrane of epithelial and hematopoietic cells, where it regulates cell positioning and communication within the surrounding tissue environment. CD44v3 Antibody for IHC Tumor Microenvironment is designed to detect the variant 3-containing isoform of CD44 in formalin-fixed, paraffin-embedded tissues, enabling immunohistochemistry-based evaluation of tumor architecture and cell-stroma interactions. CD44v3 contributes to the structural interface between tumor cells and the extracellular matrix, supporting organization of the tumor microenvironment.

CD44 antibody, also referred to as CD44 antigen antibody, CD44 variant 3 antibody, CD44v3 IHC antibody, or Hermes antigen antibody, recognizes alternatively spliced isoforms that confer distinct biological roles. CD44v3 is characterized by the presence of heparan sulfate-modified domains that facilitate binding to extracellular matrix components and matrix-associated signaling molecules. Mouse monoclonal antibody clone CDLA44v3-1 is designed to detect CD44v3 in tissue sections, enabling identification of tumor cell populations engaged in matrix interaction and spatial organization within tissue.

Functionally, CD44v3 supports tumor cell anchoring and positioning by mediating adhesion to extracellular matrix components such as hyaluronic acid and proteoglycans while organizing the pericellular environment. This role enables tumor cells to maintain structural integration within tissue while interacting dynamically with surrounding stromal elements. In immunohistochemistry applications, CD44v3 staining presents as membranous HRP-DAB signal outlining tumor cell borders and glandular structures, highlighting the interface between tumor cells and adjacent stroma. This CD44v3 Antibody for IHC Tumor Microenvironment is particularly suited for examining tumor architecture, stromal interface, and spatial organization in epithelial malignancies.

CD44v3 expression is observed in carcinoma tissues including prostate carcinoma, where it highlights malignant epithelial cells and their relationship to surrounding connective tissue. Its distribution within tumor samples often reflects areas of active interaction between tumor cells and the extracellular matrix, supporting evaluation of tumor organization and microenvironmental context. Detection of CD44v3 in these tissues provides insight into structural aspects of tumor biology and the spatial relationship between epithelial tumor cells and stromal compartments.

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. The variant 3 region is generated through alternative splicing and contains sites for heparan sulfate modification, contributing to its ability to mediate extracellular interactions. CD44 isoforms are differentially expressed depending on tissue type and biological context, with CD44v3 commonly associated with cell interaction and microenvironmental organization. An antibody targeting CD44v3 is suitable for detecting variant-specific expression in carcinoma tissues and related research applications involving tumor-stroma interaction and extracellular matrix biology.

For additional CD44 research, explore our HCAM Antibody 156-3C11, a well-established monoclonal antibody with over 200 publications supporting its use in studies of cell adhesion, migration, and cancer biology.

Application Notes

Titering of the CD44v3 Antibody for IHC Tumor Microenvironment / Cell Interaction Marker Antibody may be required for optimal performance.

Immunogen

An amino acid sequence from the variant 3 domain of CD44 was used as the immunogen for the CD44v3 antibody.

Storage

Store the CD44v3 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD44v3 antibody, CD44 variant 3 antibody, CD44 splice variant antibody, CD44 cell interaction marker antibody, Hermes antigen variant antibody

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