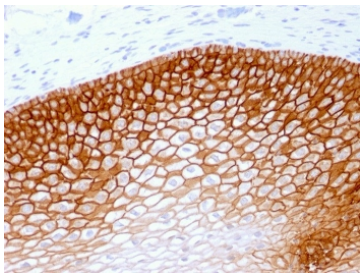
CD44v4 Antibody for IHC Tumor Architecture / Epithelial Structure Marker Antibody [clone rCD44v4/1219] (V3590)

Catalog No.	Formulation	Size
V3590-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3590-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3590SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3590IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

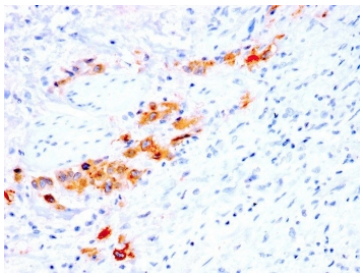
Recombinant MOUSE MONOCLONAL

Bulk quote request

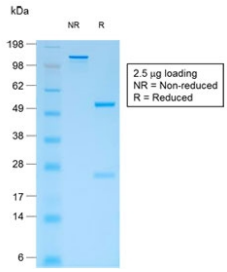
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2a, kappa
Clone Name	rCD44v4/1219
Purity	Protein G affinity chromatography
UniProt	P16070
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CD44v4 Antibody for IHC Tumor Architecture / Epithelial Structure Marker Antibody is available for research use only.



CD44v4 Antibody for IHC Cervical Squamous Cell Carcinoma. Immunohistochemistry analysis of CD44 variant 4 / CD44 expression in FFPE human cervical squamous cell carcinoma using recombinant mouse monoclonal antibody clone rCD44v4/1219. Strong membranous HRP-DAB brown staining is observed in malignant squamous epithelial cells forming cohesive sheets, clearly outlining cell borders and highlighting preserved epithelial organization consistent with CD44v4-associated tumor architecture and structural integrity. The staining pattern emphasizes uniform cell morphology and supports its use for evaluating epithelial structure and architectural organization within cervical 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.



CD44v4 Antibody for IHC Bladder Tissue. Immunohistochemistry analysis of CD44 variant 4 / CD44 expression in FFPE human bladder tissue using recombinant mouse monoclonal antibody clone rCD44v4/1219. Membranous HRP-DAB brown staining is observed in epithelial cells lining glandular and luminal structures, highlighting cell borders and demonstrating focal epithelial organization within the surrounding stroma consistent with CD44v4-associated tissue architecture. The staining pattern emphasizes structural variation and supports its use for evaluating epithelial morphology and organization in bladder tissue. Heat induced epitope retrieval was performed by steaming tissue sections in pH 9 10mM Tris with 1mM EDTA buffer for 10-20 min.



SDS-PAGE analysis of purified, BSA-free recombinant CD44v4 antibody (clone rCD44v4/1219) as confirmation of integrity and purity.

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 contributes to maintenance of tissue architecture and spatial organization of cells within tissue. CD44v4 Antibody for IHC Tumor Architecture is designed to detect the variant 4-containing isoform of CD44 in formalin-fixed, paraffin-embedded tissues, enabling immunohistochemistry-based evaluation of epithelial tumor structure and morphological organization. CD44v4 expression is associated with preservation of epithelial cohesion and contributes to the maintenance of organized cellular architecture across a range of epithelial tumor types.

CD44 antibody, also referred to as CD44 antigen antibody, CD44 variant 4 antibody, CD44v4 IHC antibody, or Hermes antigen antibody, recognizes alternatively spliced isoforms that confer distinct biological functions. CD44v4 contributes to membrane-associated adhesion and coordinated arrangement of epithelial cells, supporting structured organization within both normal and neoplastic tissues. Recombinant mouse monoclonal antibody clone rCD44v4/1219 is designed to detect CD44v4 in tissue sections, enabling consistent visualization of epithelial structure and morphology across multiple carcinoma types and tissue contexts.

Functionally, CD44v4 supports epithelial architecture by maintaining cell-cell adhesion while preserving spatial organization of tumor cells within tissue. In carcinoma samples, this is reflected in the retention of recognizable epithelial features, including cohesive tumor nests, gland-like structures, and defined cellular boundaries. In immunohistochemistry applications, CD44v4 staining presents as strong membranous HRP-DAB signal outlining tumor cell borders, allowing clear visualization of tumor morphology, structural organization, and architectural heterogeneity. This CD44v4 Antibody for IHC Tumor Architecture is particularly suited for examining epithelial tumor structure, assessing organization within

malignant tissues, and identifying differences in architectural patterns across tumor regions.

CD44v4 expression is observed in epithelial malignancies including cervical carcinoma and bladder carcinoma, where it highlights malignant epithelial cells and supports evaluation of tumor structure in distinct tissue environments. Differences in tissue context may reveal variation in architectural patterns, including stratified versus glandular organization, providing insight into how epithelial tumors maintain or alter structural integrity across different organs. Detection of CD44v4 in these tissues supports comparative analysis of tumor morphology and spatial organization across epithelial cancer types.

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 4 region is generated through alternative splicing within the extracellular domain, producing isoforms with specialized roles in adhesion and tissue organization. CD44 isoforms are differentially expressed depending on tissue type and biological context, with CD44v4 commonly associated with epithelial cohesion and structural maintenance. An antibody targeting CD44v4 is suitable for detecting variant-specific expression in epithelial tumors and related research applications involving tissue architecture, morphological analysis, and tumor organization.

This CD44v4 antibody is part of a broader CD44 antibody panel offered by NSJ Bioreagents.

Application Notes

Titering of the CD44v4 Antibody for IHC Tumor Architecture / Epithelial Structure Marker Antibody may be required for optimal performance.

1. 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

An amino acid sequence from the variant 4 domain of CD44 was used as the immunogen for the recombinant CD44v4 antibody.

Storage

Store the CD44v4 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD44v4 antibody, CD44 variant 4 antibody, CD44 splice variant antibody, CD44 epithelial structure marker antibody, Hermes antigen variant antibody