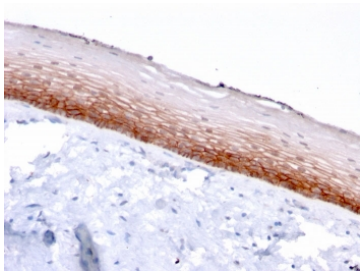
CD44v4/5 Antibody for IHC Cervical Epithelium / CD44 Variant Region Antibody [clone 3D2] (V8250)

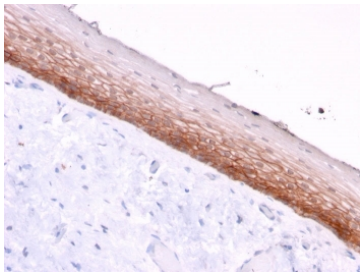
Catalog No.	Formulation	Size
V8250-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8250-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8250SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

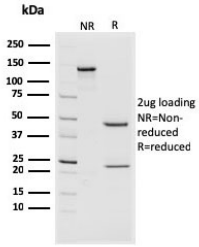
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	3D2
Purity	Protein G affinity chromatography
UniProt	P16070
Applications	Flow cytometry: 1-2ug/10^6 cells in 0.1ml Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This CD44v4/5 Antibody for IHC Cervical Epithelium / CD44 Variant Region Antibody is available for research use only.



CD44v4/5 Antibody for IHC Cervical Epithelium. Immunohistochemistry analysis of CD44 variant region / CD44 expression in FFPE human cervix tissue using mouse monoclonal antibody clone 3D2. Strong membranous HRP-DAB brown staining is observed in stratified squamous epithelial cells, with signal enriched in basal and suprabasal layers and clearly outlining epithelial stratification consistent with CD44 variant-associated adhesion and epithelial organization. The staining pattern highlights normal epithelial layering and supports its use as a marker of cervical epithelial structure and differentiation. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling at RT before testing.



CD44v4/5 Antibody for IHC Cervix Tissue. Immunohistochemistry analysis of CD44 variant region / CD44 expression in FFPE human cervix tissue using mouse monoclonal antibody clone 3D2. Membranous HRP-DAB brown staining is observed along the epithelial layer, highlighting continuous cell borders and demonstrating organized stratified architecture consistent with CD44 variant-associated epithelial cohesion and tissue integrity. The staining pattern emphasizes basal layer prominence and supports its application in evaluating normal cervical epithelial morphology. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling at RT before testing.



SDS-PAGE analysis of purified, BSA-free CD44v4/5 antibody (clone 3D2) 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 plays a central role in maintaining tissue architecture and coordinating cell-cell communication. CD44v4/5 Antibody for IHC Cervical Epithelium is designed to detect CD44 variant region expression in formalin-fixed, paraffin-embedded tissues, enabling immunohistochemistry-based evaluation of epithelial organization and structural integrity in normal cervical tissue. CD44 variant isoforms are prominently expressed in stratified squamous epithelium, where coordinated cell adhesion and differentiation maintain epithelial layering and tissue cohesion.

CD44 antibody, also referred to as CD44 antigen antibody, CD44 variant region antibody, CD44v4 antibody, CD44v5 antibody, or Hermes antigen antibody, recognizes alternatively spliced isoforms that confer distinct biological functions. Clone 3D2 is a widely referenced mouse monoclonal antibody reported to recognize epitopes within the CD44 variant region, commonly associated with v4- and v5-containing isoforms. Precise epitope mapping within individual variant exons is not fully defined, and the antibody is typically used to detect CD44 variant expression rather than isolate a single variant isoform. This positioning makes it particularly useful for assessing overall CD44 variant distribution within epithelial tissues rather than focusing on a single splice variant.

Functionally, CD44 variant isoforms contribute to epithelial cohesion and structural organization by supporting cell-cell adhesion and anchoring epithelial cells to the extracellular matrix. In normal cervical epithelium, expression is typically enriched in basal and suprabasal layers, where proliferative and differentiating epithelial cells maintain tissue renewal and stratification. In immunohistochemistry applications, CD44v4/5 staining presents as strong membranous HRP-DAB signal outlining individual cell borders, allowing clear visualization of epithelial stratification, cellular morphology, and layer-specific organization. This CD44v4/5 Antibody for IHC Cervical Epithelium is particularly suited for examining epithelial differentiation patterns and structural integrity in normal cervix.

CD44 variant region expression in cervical tissue provides a useful baseline reference for comparison with pathological conditions, where staining intensity, distribution, or continuity may change with altered differentiation or disease-associated remodeling. Establishing normal expression patterns in stratified epithelium supports accurate interpretation of changes observed in dysplasia or carcinoma. Detection of CD44 variant expression therefore contributes to studies of epithelial biology, tissue organization, and comparative analysis between normal and diseased states.

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. Variant regions including v4 and v5 are generated through alternative splicing within the extracellular domain, producing isoforms with specialized roles in adhesion and epithelial organization. CD44 isoforms are differentially expressed depending on tissue type and biological context, with variant-containing isoforms commonly enriched in epithelial tissues. An antibody targeting the CD44 variant region is suitable for detecting variant-associated expression patterns in cervical epithelium and related research applications involving epithelial differentiation and tissue organization.

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

Optimal dilution of the CD44v4/5 Antibody for IHC Cervical Epithelium / CD44 Variant Region Antibody should be determined by the researcher.

Immunogen

A recombinant human full-length CD44v3-10 protein was used as the immunogen for this CD44v4/5 antibody.

Storage

Store the CD44v4/5 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD44v4/5 antibody, CD44 variant region antibody, CD44 variant 4 antibody, CD44 variant 5 antibody, Hermes antigen variant antibody

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