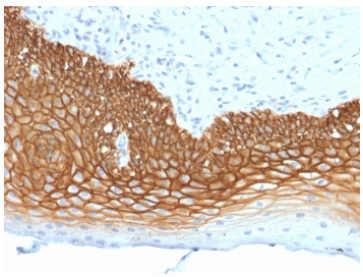
CD44v3 Antibody for IHC Growth Factor Signaling / Co-Receptor Marker Antibody [clone 3G5] (V3768)

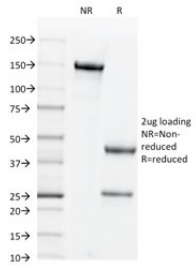
Catalog No.	Formulation	Size
V3768-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3768-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3768SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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	3G5
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 Growth Factor Signaling / Co-Receptor Marker Antibody is available for research use only.



CD44v3 Antibody for IHC Cervical Carcinoma. Immunohistochemistry analysis of CD44 variant 3 / CD44 expression in FFPE human cervical carcinoma using mouse monoclonal antibody clone 3G5. Membranous HRP-DAB brown staining is observed in malignant epithelial cells, highlighting cell surface localization consistent with CD44v3-associated co-receptor activity and growth factor signaling. The staining pattern supports its role in tumor cell signaling and microenvironmental interaction 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.



SDS-PAGE analysis of purified, BSA-free CD44v3 antibody (clone 3G5) 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 coordinates cell-cell communication and integrates extracellular signals. CD44v3 Antibody for IHC Growth Factor Signaling is designed to detect the variant 3-containing isoform of CD44 in formalin-fixed, paraffin-embedded tissues, enabling immunohistochemistry-based evaluation of signaling-active tumor cell populations. CD44v3 is uniquely distinguished by its ability to carry heparan sulfate side chains that facilitate presentation of growth factors at the cell surface.

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 functions. Among these, CD44v3 functions as a co-receptor by binding and presenting heparan sulfate-dependent growth factors, including members of the fibroblast growth factor family, to their respective receptors. Mouse monoclonal antibody clone 3G5 is designed to detect CD44v3 in tissue sections, supporting identification of tumor cell populations engaged in active growth factor signaling and extracellular signal integration.

Functionally, CD44v3 enhances signaling efficiency at the cell surface by concentrating growth factors and facilitating receptor activation, thereby promoting cellular proliferation, survival, and adaptive responses to the microenvironment. This co-receptor activity allows tumor cells to amplify external signaling cues and modulate downstream pathways involved in growth and tissue interaction. In immunohistochemistry applications, CD44v3 staining presents as membranous HRP-DAB signal in carcinoma cells, highlighting regions of active signaling and growth factor engagement. This CD44v3 Antibody for IHC Growth Factor Signaling is particularly suited for examining co-receptor function and signaling-associated tumor biology in epithelial malignancies.

CD44v3 expression is observed in carcinoma tissues including cervical carcinoma, where it marks tumor cell populations with enhanced responsiveness to extracellular growth factors. Its distribution within tumor tissue may reflect localized signaling environments and microenvironmental influences on tumor cell behavior. Detection of CD44v3 in these tissues provides insight into signaling-driven aspects of tumor organization and supports analysis of growth factor-mediated regulation in cancer biology.

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, which are critical for its co-receptor function. CD44 isoforms are differentially expressed depending on tissue type and biological context, with CD44v3 specifically associated with growth factor presentation and signaling regulation at the cell surface. An antibody targeting CD44v3 is suitable for detecting variant-specific expression in carcinoma tissues and related research applications involving growth factor signaling and tumor cell communication.

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 Growth Factor Signaling / Co-Receptor 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 co-receptor antibody, Hermes antigen variant antibody

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