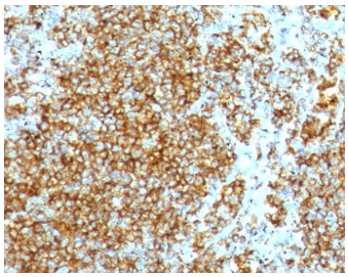
HCAM Antibody / Cell Migration and Immune Trafficking Marker Antibody [clone HCM15-2R] (V7303)

Catalog No.	Formulation	Size
V7303-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7303-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7303SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7303IHC-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 RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	HCM15-2R
Purity	Protein A affinity chromatography
UniProt	P16070
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE) : 0.25-0.5ug/ml for 30 min at RT Prediluted IHC Only Format : incubate for 30 min at RT (1)
Limitations	This HCAM Antibody / Cell Migration and Immune Trafficking Marker Antibody is available for research use only.



HCAM Antibody Lymph Node IHC. Immunohistochemistry analysis of HCAM / CD44 expression in FFPE human lymph node tissue using Cell Migration and Immune Trafficking Marker Antibody clone HCM15-2R. Membranous HRP-DAB brown staining is observed in dense lymphoid cell populations, highlighting widespread cell surface localization consistent with HCAM/CD44 expression on migrating immune cells. The staining pattern demonstrates clustered distribution within lymphoid regions and supports its use for evaluating immune cell trafficking, spatial organization, and microenvironment-associated cell movement in lymph node tissue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 6 10 mM citrate buffer for 10-20 min followed by cooling at RT for 20 min.

Description

Homing cell adhesion molecule (HCAM), also known as CD44 antigen, 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 immune cells, including T lymphocytes, B lymphocytes, and monocytes, where it plays a central role in regulating cell trafficking and movement through tissue environments. HCAM Antibody / Cell Migration and Immune Trafficking Marker Antibody (clone HCM15-2R) is designed to detect HCAM/CD44 expression in formalin-fixed, paraffin-embedded tissues, enabling immunohistochemistry-based evaluation of immune cell migration, spatial distribution, and dynamic positioning within lymphoid tissues.

HCAM antibody, also referred to as CD44 antibody or Hermes antigen antibody, recognizes a cell surface glycoprotein involved in leukocyte adhesion and motility. In lymph node tissue, HCAM/CD44 expression is closely associated with active immune cell trafficking, including migration between cortical and paracortical regions and interaction with stromal and extracellular matrix components. Clone HCM15-2R is a recombinant rabbit monoclonal antibody designed to detect HCAM/CD44 in this dynamic biological context, supporting analysis of cell movement and localization within immune microenvironments.

Functionally, HCAM/CD44 mediates binding to hyaluronic acid and other extracellular matrix components, facilitating leukocyte rolling, adhesion, and translocation within tissues. These processes are essential for immune surveillance and coordinated immune responses. In immunohistochemistry applications, staining typically presents as membranous HRP-DAB signal in lymphoid cell populations, reflecting active cell surface localization associated with migratory behavior. This HCAM Antibody clone HCM15-2R is particularly suited for examining immune cell trafficking, distribution patterns, and microenvironmental interactions in lymph node tissue.

HCAM/CD44 expression in lymph node highlights its role in regulating immune cell movement between compartments and maintaining spatial organization within lymphoid structures. Variability in staining intensity and distribution may reflect differences in cell activation state and migratory activity. Detection in this tissue provides insight into dynamic cellular processes including migration, localization, and interaction with extracellular matrix components. The use of a rabbit monoclonal antibody supports consistent and sensitive detection across heterogeneous immune cell populations in immunohistochemistry assays.

Structurally, HCAM/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 diversity and functional modulation. An antibody targeting HCAM/CD44 is suitable for detecting membrane-associated expression and studying immune cell trafficking, migration, and spatial organization in tissue-based applications.

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

Application Notes

Optimal dilution of the HCAM Antibody / Cell Migration and Immune Trafficking Marker Antibody should be determined by

the researcher.

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

Stimulated human leukocytes were used as the immunogen for the recombinant HCAM antibody.

Storage

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

Alternate Names

HCAM antibody, CD44 antibody, HCAM migration marker antibody, CD44 trafficking marker antibody, Hermes antigen antibody