10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CD44 / HCAM Std. Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone HCAM/1097]
Catalog # AH12750

Product Information

Application	IHC, IF, FC
Primary Accession	P16070
Other Accession	960, 502328
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	HCAM/1097
Calculated MW	81538

Additional Information

Gene ID	960
Other Names	CD44 antigen, CDw44, Epican, Extracellular matrix receptor III, ECMR-III, GP90 lymphocyte homing/adhesion receptor, HUTCH-I, Heparan sulfate proteoglycan, Hermes antigen, Hyaluronate receptor, Phagocytic glycoprotein 1, PGP-1, Phagocytic glycoprotein I, PGP-I, CD44, CD44, LHR, MDU2, MDU3, MIC4
Application Note	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	CD44 / HCAM Std. Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD44
Synonyms	LHR, MDU2, MDU3, MIC4
Function	Cell-surface receptor that plays a role in cell-cell interactions, cell adhesion and migration, helping them to sense and respond to changes in the tissue microenvironment (PubMed:16541107, PubMed:19703720, PubMed:22726066). Participates thereby in a wide variety of cellular functions including the activation, recirculation and homing of T-lymphocytes, hematopoiesis, inflammation and response to bacterial infection (PubMed:7528188). Engages, through its ectodomain, extracellular matrix components such as hyaluronan/HA, collagen, growth factors, cytokines or

	proteases and serves as a platform for signal transduction by assembling, via its cytoplasmic domain, protein complexes containing receptor kinases and membrane proteases (PubMed:18757307, PubMed:23589287). Such effectors include PKN2, the RhoGTPases RAC1 and RHOA, Rho-kinases and phospholipase C that coordinate signaling pathways promoting calcium mobilization and actin-mediated cytoskeleton reorganization essential for cell migration and adhesion (PubMed:15123640).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, microvillus {ECO:0000250|UniProtKB:P15379}. Secreted Note=Colocalizes with actin in membrane protrusions at wounding edges Co-localizes with RDX, EZR and MSN in microvilli. Localizes to cholesterol-rich membrane-bound lipid raft domains {ECO:0000250|UniProtKB:P15379, ECO:0000269|PubMed:23589287}
Tissue Location	Detected in fibroblasts and urine (at protein level) (PubMed:25326458, PubMed:36213313, PubMed:37453717). Detected in placenta (at protein level) (PubMed:32337544). Isoform 10 (epithelial isoform) is expressed by cells of epithelium and highly expressed by carcinomas. Expression is repressed in neuroblastoma cells

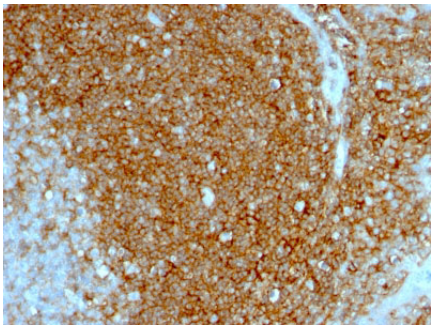
Background

Recognizes a cell surface glycoprotein of 80-95kDa (CD44) on lymphocytes, monocytes, and granulocytes. The CD44 family of glycoproteins exists in a number of variant isoforms, the most common being the standard 85-95kDa or hematopoietic variant (CD44s). Higher molecular weight isoforms are described in epithelial cells (CD44v), which are believed to function in intercellular adhesion and stromal binding. CD44 immunostaining is commonly used for the discrimination of urothelial transitional cell carcinoma in-situ from non-neoplastic changes in the urothelium.

References

Horny HP, Menke DM, Kaiserling E. Neoplastic human tissue mast cells express the adhesion molecule CD44/HCAM. Virchows Arch 1996;429:91-4

Images



Formalin-fixed, paraffin-embedded human Tonsil stained with CD44 Monoclonal Antibody (HCAM/1097)