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CD44 Monoclonal Antibody

Mouse Anti Human Monoclonal Antibody
Catalog # ABV11724

Product Information

Application	WB, IHC
Primary Accession	P16070
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG2a ,K
Clone Names	Hermes-3
Calculated MW	81538

Additional Information

Gene ID	960
Positive Control	WB, IHC, IF. FC
Application & Usage	IHC-P~~1:10~50, WB~~1:2000, IF~~1:10~50, FC~~1:10~50
Other Names	CD44 , homing cell adhesion molecule, cell adhesion molecule, LHR, MDU2, MDU3, MIC4
Target/Specificity	CD44
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	PBS with 0.09% (W/V) sodium azide.
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	CD44 Monoclonal Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

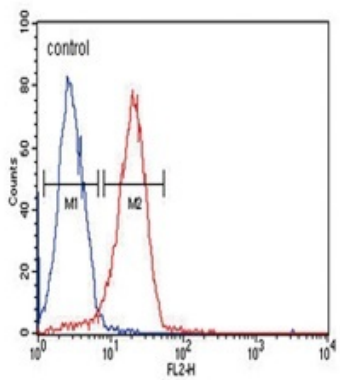
Name	CD44
Synonyms	LHR, MDU2, MDU3, MIC4
Function	Cell-surface receptor that plays a role in cell-cell interactions, cell adhesion

	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). Upon interaction with LGALS9 ligand, activates downstream signaling components including LCK, ERK and MAPK to promotes NK cell activation (PubMed:37006235).
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

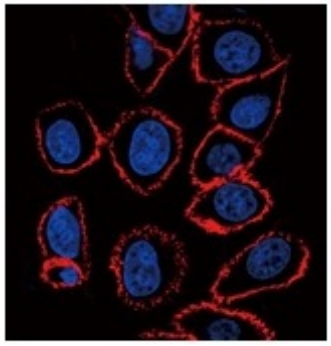
The protein encoded by this gene is a cell-surface glycoprotein involved in cell-cell interactions, cell adhesion and migration. It is a receptor for hyaluronic acid (HA) and can also interact with other ligands, such as osteopontin, collagens, and matrix metalloproteinases (MMPs). This protein participates in a wide variety of cellular functions including lymphocyte activation, recirculation and homing, hematopoiesis, and tumor metastasis. Transcripts for this gene undergo complex alternative splicing that results in many functionally distinct isoforms, however, the full length nature of some of these variants has not been determined. Alternative splicing is the basis for the structural and functional diversity of this protein, and may be related to tumor metastasis.

Images

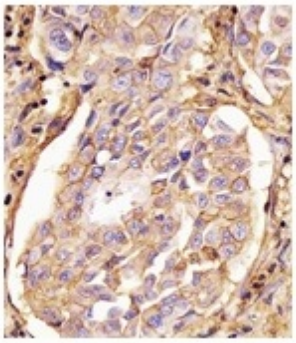


Flow cytometric analysis of Hela cells (right) compared to a negative control cell (left) using CD44 antibody.

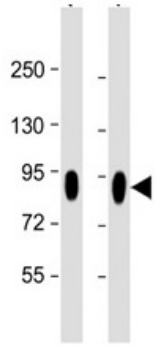
CD44 antibody confocal immunofluorescent analysis with



Hela cell.



CD44 staining in human lung adenocarcinoma tissue sections by immunohistochemistrty.



Western blot analysis using CD44 antibody in Lane1: Hela; Lane2: HUVEC whole cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.