CD44 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	CD44, Blocking Peptide
Full Product Name	CD44 Blocking Peptide
Product Gene Name	CD44 blocking peptide
Product Synonym Names	LHR; BA-1; CD 44; CD44; CD44 antigen; CD44 molecule (Indian blood group); CD44 molecule; CD44_HUMAN; CDw44; Cell surface glycoprotein CD44; chondroitin sulfate proteoglycan 8; CSPG8; ECMR-III; Epican; Extracellular matrix receptor III; GP90 lymphocyte homing/adhesion receptor; HCELL; hematopoietic cell E-and L-selectin ligand; Heparan sulfate proteoglycan; Hermes antigen; homing function and Indian blood group system; HSA; HUTCH-I; HUTCH1; Hyaluronate receptor; IN; INLU-related p80 Glycoprotein; MC56; MDU2; MDU3; MGC10468; MIC4; MUTCH1; PGP-1; PGP-I; PGP1; Phagocytic glycoprotein 1; Phagocytic glycoprotein I; Soluble CD44
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	CD44 peptide (MBS9625765) is used for blocking the activity of CD44 antibody (MBS9607049)
Molecular Weight	81,538 Da
Chromosome Location	Chromosome: 11; NC_000011.9 (35160417..35253949). Location: 11p13
OMIM	107269
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for CD44 blocking peptide	Blocking/Control
Related Product Information for CD44 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of CD44 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CD44 purchase	MBS9625765 is a blocking peptide targeting CD44.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CD44. It may not necessarily be applicable to this product.

NCBI GI #	48255935
NCBI GeneID	960

NCBI Accession #	NP_000601.3
UniProt Primary Accession #	P16070
UniProt Secondary Accession #	O95370; P22511; Q04858; Q13419; Q13957; Q13958; Q13959; A5YRN9; B6EAT9; D3DR12; D3DR13
UniProt Related Accession #	P16070
GenBank Nucleotide #	NM_000610.3
NCBI Official Full Name	CD44 antigen isoform 1
NCBI Official Synonym Full Names	CD44 molecule (Indian blood group)
NCBI Official Symbol	CD44
NCBI Official Synonym Symbols	IN; LHR; MC56; MDU2; MDU3; MIC4; Pgp1; CDW44; CSPG8; HCELL; HUTCH-I; ECMR-III
UniProt Protein Name	CD44 antigen
UniProt Synonym Protein Names	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
Protein Family	CD44 antigen
UniProt Gene Name	CD44
UniProt Synonym Gene Names	LHR; MDU2; MDU3; MIC4; ECMR-III; PGP-1; PGP-I
UniProt Entry Name	CD44_HUMAN
NCBI Protein Information	CD44 antigen; epican; Hermes antigen; hyaluronate receptor; phagocytic glycoprotein 1; heparan sulfate proteoglycan; cell surface glycoprotein CD44; extracellular matrix receptor III; chondroitin sulfate proteoglycan 8; GP90 lymphocyte homing/adhesion rec
NCBI Summary for CD44	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. [provided by RefSeq, Jul 2008]

UniProt Comments for CD44	CD44: Receptor for hyaluronic acid (HA). Mediates cell-cell and cell-matrix interactions through its affinity for HA, and possibly also through its affinity for other ligands such as osteopontin, collagens, and matrix metalloproteinases (MMPs). Adhesion with HA plays an important role in cell migration, tumor growth and progression. Also involved in lymphocyte activation, recirculation and homing, and in hematopoiesis. Altered expression or dysfunction causes numerous pathogenic phenotypes. Great protein heterogeneity due to numerous alternative splicing and post-translational modification events. Interacts with PKN2. Interacts with HA, as well as other glycosaminoglycans, collagen, laminin, and fibronectin via its N-terminal segment. Interacts with ANK, the ERM proteins (VIL2, RDX and MSN), and NF2 via its C-terminal segment. Isoform 10 (epithelial isoform) is expressed by cells of epithelium and highly expressed by carcinomas. Expression is repressed in neuroblastoma cells. 19 isoforms of the human protein are produced by alternative splicing. Protein type: Motility/polarity/chemotaxis; Membrane protein, integral; Cell adhesion; Receptor, misc. Chromosomal Location of Human Ortholog: 11p13 Cellular Component: Golgi apparatus; focal adhesion; cell surface; basolateral plasma membrane; integral to plasma membrane; cytoplasm; plasma membrane; external side of plasma membrane Molecular Function: collagen binding; hematopoietin/interferon-class (D200-domain) cytokine receptor activity; protein binding; hyaluronic acid binding; hyaluronoglucosaminidase activity Biological Process: extracellular matrix organization and biogenesis; positive regulation of heterotypic cell-cell adhesion; Wnt receptor signaling pathway; glycosaminoglycan metabolic process; cytokine and chemokine mediated signaling pathway; cell-matrix adhesion; pathogenesis; negative regulation of caspase activity; positive regulation of peptidyl-serine phosphorylation; hyaluronan catabolic process; extracellular matrix disassembly; negative regulation of DNA damage response, signal transduction by p53 class mediator; positive regulation of peptidyl-tyrosine phosphorylation; cell-cell adhesion; ureteric bud branching; cartilage development; carbohydrate metabolic process; blood coagulation; leukocyte migration; hyaluronan metabolic process; healing during inflammatory response; negative regulation of apoptosis Disease: Blood Group, Indian System
Research Articles on CD44	**1.** Combination of CD29 and CD44 can be used as markers to enrich cancer stem cells in human squamous cell carcinoma with epithelial-mesenchymal transition.
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