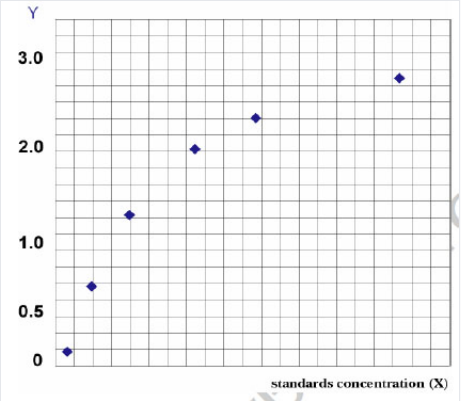
Cluster of Differentiation 44 (CD44) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Cluster of differentiation 44 (CD44), ELISA Kit
Full Product Name	Human Cluster of differentiation 44 ELISA Kit
Product Gene Name	CD44 elisa kit
Species Reactivity	Human
Assay Type	Competitive
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Detection Range	2.5-50ng/mL
Sensitivity	1.0ng/mL
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	15,635 Da
OMIM	gene 609027
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Product Categories/Family for CD44 elisa kit	Immunology
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for CD44 elisa kit	**Intended Uses:** This CD44 ELISA kit is intended Laboratory for research use only.The Stop Solution changes the color from blue to yellow and the intensity of the color is measured at 450 nm using a spectrophotometer. In order to measure the concentration ofCD44 in the sample, thisCD44 ELISA Kit includes a set of calibration standards. The calibration standards are assayed at the same time as the samples and allow the operator to produce a standard curve of Optical Density versusCD44 concentration. The concentration ofCD44 in the samples is then determined by comparing the O.D. of the samples to the standard curve. **Principle of the Assay:** This CD44 enzyme linked immunosorbent assay applies a technique called a quantitative sandwich immunoassay. The microtiter plate provided in this kit has been pre-coated with a monoclonal antibody specific forCD44. Standards or samples are then added to the microtiter plate wells andCD44 if present, will bind to the antibody pre-coated wells. In order to quantitatively determine the amount ofCD44 present in the sample, a standardized preparation of horseradish peroxidase (HRP)-conjugated polyclonal antibody, specific forCD44 are added to each well to "sandwich" theCD44 immobilized on the plate. The microtiter plate undergoes incubation, and then the wells are thoroughly washed to remove all unbound components. Next, A and B substrate solution is added to each well. The enzyme (HRP) and substrate are allowed to react over a short incubation period.Only those wells that containCD44 and enzyme-conjugated antibody will exhibit a change in colour. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the colour change is measured spectrophotometrically at a wavelength of 450 nm.
Other Notes	Small volumes of CD44 elisa kit 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	MBS721568 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Cluster of differentiation 44 (CD44) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing CD44. The ELISA analytical biochemical technique of the MBS721568 kit is based on CD44 antibody-CD44 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect CD44 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, CD44. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of CD44 elisa kit

ADDITIONAL DETAILS

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

NCBI GI #	685122
NCBI GeneID	960
NCBI Accession #	AAB30429.1
UniProt Secondary Accession #	O95370; P22511; Q04858; Q13419; Q13957; Q13958; Q13959; A5YRN9; B6EAT9; D3DR12; D3DR13
UniProt Related Accession #	P16070
NCBI Official Full Name	CD44, partial
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; PGP-I; CD_antigen: CD44
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 receptor; hematopoietic cell E- and L-selectin ligand; homing function and Indian blood group system

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: Membrane protein, integral; Receptor, misc.; Motility/polarity/chemotaxis; Cell adhesion 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; Wnt receptor signaling pathway; positive regulation of heterotypic cell-cell adhesion; 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; negative regulation of DNA damage response, signal transduction by p53 class mediator; extracellular matrix disassembly; positive regulation of peptidyl-tyrosine phosphorylation; cell-cell adhesion; ureteric bud branching; cartilage development; carbohydrate metabolic process; blood coagulation; hyaluronan metabolic process; leukocyte migration; healing during inflammatory response; negative regulation of apoptosis Disease: Blood Group, Indian System
Research Articles on CD44	**1.** Rb suppresses collective invasion, circulation and metastasis of breast cancer cells in CD44-dependent manner.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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