Mouse Anti Sheep CD44 Monoclonal Antibody, FITC

DMABT-46124MS Mouse(CD44)
Lot. No. (See product label)

PRODUCT INFORMATION

Product Overview	Mouse Anti Sheep CD44,FITC
Host	Mouse
Isotype	IgG1
Species	Sheep
Cross Reactivity	Bovine and caprine N.B. Antibody reactivity and working conditions may vary between species.
Clone	36.43
Conjugation	FITC
Applications	FCM,
Dilution	FCM: Neat - 1/10

PACKAGING

Format	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid
Protein Concentration	IgG concentration 0.1 mg/ml
Buffer	Phosphate buffered saline
Storage	Store at +4 °C or at -20 °C if preferred.This product should be stored undiluted.Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Preservative	0.09%Sodium Azide1%Bovine Serum Albumin
Shelf Life	18 months from date of despatch.

BACKGROUND

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Introduction

The CD44 antigen is a cell-surface glycoprotein involved in cell–cell interactions, cell adhesion and migration. In humans, the CD44 antigen is encoded by the CD44 gene. CD44 is a receptor for hyaluronic acid and can also interact with other ligands, such as osteopontin, collagens, and matrix metalloproteinases (MMPs). CD44 function is controlled by its posttranslational modifications. One critical modification involves discrete sialofucosylations rendering the selectin-binding glycoform of CD44 called HCELL (for Hematopoietic Cell E-selectin/L-selectin Ligand). The HCELL glycoform was originally discovered on human hematopoietic stem cells and leukemic blasts, and was subsequently identified on cancer cells. HCELL functions as a "bone homing receptor", directing migration of human hematopoietic stem cells and mesenchymal stem cells to bone marrow. Ex vivo glycan engineering of the surface of live cells has been used to enforce HCELL expression on any cell that expresses CD44. CD44 glycosylation also directly controls its binding capacity to fibrin and immobilized fibrinogen. 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. Splice variants of CD44 on colon cancer cells display sialofucosylated HCELL glycoforms that serve as P-, L-, and E-selectin ligands and fibrin, but not fibrinogen, receptors under hemodynamic flow conditions pertinent to the process of cancer metastasis. CD44 gene transcription is at least in part activated by beta-catenin and Wnt signalling (also linked to tumour development).

Keywords

CD44; IN; LHR; MC56; MDU2; MDU3; MIC4; Pgp1; CDW44; CSPG8; HCELL; HUTCH-I; ECMR-III; 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

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