

Monoclonal Antibody to CD44 - Purified

Alternate names:	CDw44, ECMR-III, Epican, Extracellular matrix receptor III, GP90 lymphocyte homing/adhesion receptor, HUTCH-I, Heparan sulfate proteoglycan, Hermes antigen, Hyaluronate receptor, LHR, MDU2, MDU3, MIC4, PGP-1, Phagocytic glycoprotein 1
Catalog No.:	SM3024P
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	CD44 is a transmembrane glycoprotein expressed on the surface of most cells, which serves as a receptor for hyaluronan. CD44 mediates angiogenesis, cell adhesion, proliferation and migration, it is thus important for lymphocyte activation, recirculation and homing, it can thus serve e.g. as a modulator of macrophage recruitment in response to pathogen. Although CD44 functions are essential for physiological activities of normal cells, elevated CD44 expression correlates with poor prognosis in many carcinomas, facilitating tumour growth and metastasis, antiapoptosis and directional motility of cancer cells.
Uniprot ID:	P16070
NCBI:	NP_000601.3
GeneID:	960
Host / Isotype:	Mouse / IgG1
Clone:	MEM-263
Immunogen:	COS-7 cells (African Green Monkey)
Format:	State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE) Purification: Protein A affinity chromatography Buffer System: PBS with 15 mM sodium azide, approx. pH 7.4
Applications:	Flow Cytometry. Immunoprecipitation. Western Blotting: recommended dilution 2 mg/ml, 60 min on vertical incubator Positive control: Kg-1a human acute leukemia cell lysate, JURKAT human leukemia T-cell lysate. Sample preparation: Resuspend approx. 50 mil. cells in 1 ml cold Lysis buffer (1% laurylmaltoside in 20 mM Tris/Cl, 100 mM NaCl pH 8.2, 50 mM NaF including Protease inhibitor Cocktail). Incubate 60 min on ice. Centrifuge to remove cell debris. Mix lysate with non-reducing SDS-PAGE sample buffer. Application note: Non-reducing conditions. SDS-PAGE (6% separating gel). Immunohistochemistry (paraffin sections) Recommended dilution: 10 µg/ml Positive tissue: uterus, myometrium

For research and in vitro use only. Not for diagnostic or therapeutic work.

Material Safety Datasheets are available at www.acris-antibodies.com or on request.

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Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

The antibody reacts with extracellular (N-terminal) domain of standard CD44 (Phagocyte glycoprotein 1), a 80-95 kDa transmembrane glycoprotein (hyaladherin family) present on the most of cells and tissues (leukocytes, endothelial cells, mesenchymal cells, etc.); it is negative on platelets and hepatocytes.

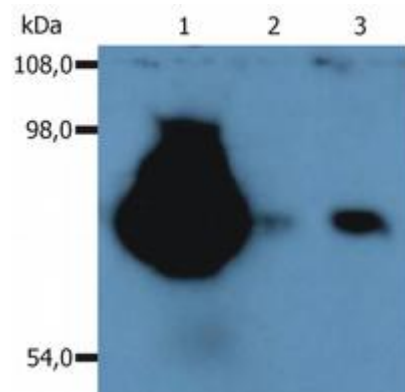
Species: Human, pig, dog.
Other species not tested.

Storage:

Store at 2-8°C for 1 month. For long-term storage aliquot and store at -20°C. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General References:

1. Vigetti D, Viola M, Karousou E, Rizzi M, Moretto P, Genasetti A, Clerici M, Hascall VC, De Luca G, Passi A: Hyaluronan-CD44-ERK1/2 regulate human aortic smooth muscle cell motility during aging. *J Biol Chem.* 2007 Dec 12
2. Hollingsworth JW, Li Z, Brass DM, Garantziotis S, Timberlake SH, Kim A, Hossain I, Savani RC, Schwartz DA. CD44 regulates macrophage recruitment to the lung in lipopolysaccharide-induced airway disease. *Am J Respir Cell Mol Biol.* 2007 Aug;37(2):248-53.
3. Liu J, Bi G, Wen P, Yang W, Ren X, Tang T, Xie C, Dong W, Jiang G. Down-regulation of CD44 contributes to the differentiation of HL-60 cells induced by ATRA or HMBA. *Cell Mol Immunol.* 2007 Feb;4(1):59-63.
4. Subramaniam V, Gardner H, Jothy S: Soluble CD44 secretion contributes to the acquisition of aggressive tumor phenotype in human colon cancer cells. *Exp Mol Pathol.* 2007 Dec;83(3):341-6.
5. Subramaniam V, Vincent IR, Gardner H, Chan E, Dhamko H, Jothy S: CD44 regulates cell migration in human colon cancer cells via Lyn kinase and AKT phosphorylation. *Exp Mol Pathol.* 2007 Oct;83(2):207-15.
6. Leukocyte Typing III., McMichael A.J. et al. (Eds.), Oxford University Press (1987).

Pictures:

Western Blotting analysis (non-reducing conditions) of isolated peripheral blood lymphocytes of various species using anti-CD44 (MEM-263). Lane 1: lysate of human PBL. Lane 2: lysate of canine PBL. Lane 3: lysate of porcine PBL.

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