EXBIO Antibodies

PRODUCT DATA SHEET

11-221-C025

Monoclonal Antibody to CD44
Purified Antibody (0.025 mg)

Clone: MEM-85

Isotype: Mouse IgG2b

Specificity: The antibody MEM-85 reacts with both cell surface-expressed and soluble form of CD44 antigen (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.
HLDA IV; WS Code NL 706
HLDA VI; WS Code AS Ref.15

Immunogen: Leukocytes of a patient suffering from LGL Type Leukaemia.

Species Reactivity: Human

Application: Flow Cytometry
Recommended dilution:1 µg/ml
Immunoprecipitation
Western Blotting
Recommended dilution: 2 µg/ml, 60 min on vertical incubator
Positive control: Kg-1a human leukemia 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).
ELISA

Purity: > 95% (by SDS-PAGE)

Purification: Purified from ascites by protein-A affinity chromatography.

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

Expiration: See vial label

Lot Number: See vial label

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.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 42 Vestec u Prahy | Czech Republic
Tel: +420 261 090 664 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz

References:

*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

*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.

*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.

*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.

*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.

*Stefanová I, Hilgert I, Bazil V, Kristofová H, Horejsí V: Human leucocyte surface glycoprotein CDw44 and lymphocyte homing receptor are identical molecules. Immunogenetics. 1989;29(6):402-4.

*Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).

*Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).

*Bazil V, Strominger JL: Metalloprotease and serine protease are involved in cleavage of CD43, CD44, and CD16 from stimulated human granulocytes. Induction of cleavage of L-selectin via CD16. J Immunol. 1994 Feb 1;152(3):1314-22.

*Ilangumaran S, Briol A, Hoessli DC: CD44 selectively associates with active Src family protein tyrosine kinases Lck and Fyn in glycosphingolipid-rich plasma membrane domains of human peripheral blood lymphocytes. Blood. 1998 May 15;91(10):3901-8.

*Kolar GR, Mehta D, Pelayo R, Capra JD: A novel human B cell subpopulation representing the initial germinal center population to express AID. Blood. 2007 Mar 15;109(6):2545-52.

*Schmidt D, Achermann J, Odermatt B, Breymann C, Mol A, Genoni M, Zund G, Hoerstrup SP: Prenatally fabricated autologous human living heart valves based on amniotic fluid derived progenitor cells as single cell source. Circulation. 2007 Sep 11;116(11 Suppl):I64-70.

For laboratory research only, not for drug, diagnostic or other use.