

TECHNICAL DATA SHEET

CyFlow™ CD44 Biotin Anti-Hu/Ms; Clone IM7

REF AR623134

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD44
Alternative Names	H-CAM, Pgp-1
Clone	IM7
Clonality	monoclonal
Format	Biotin
Host / Isotype	Rat / IgG2b
Species Reactivity	Human Mouse, Horse Dog Cat
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Dexamethasone-induced cells of the SJL mouse spontaneous myeloid leukemia M1

Specificity

The rat monoclonal antibody IM7 recognizes CD44 antigen, an 80-95 kDa transmembrane glycoprotein (hyaladherin family) present on the most of cells and tissues (leukocytes, endothelial cells, mesenchymal

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cells, etc.); it is negative on platelets and hepatocytes. The antibody reacts with all isoforms of mouse CD44.

Application

The reagent is designed for indirect immunofluorescence analysis by Flow Cytometry. Working concentrations should be determined by the investigator.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in phosphate buffered saline (PBS) solution, pH $\approx$ 7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

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 tumor growth and metastasis, antiapoptosis and directional motility of cancer cells.

References

- Lesley J, Trowbridge IS: Genetic characterization of a polymorphic murine cell-surface glycoprotein. Immunogenetics. 1982 Mar; 15(3):313-20. < PMID: 7068175 >
- Si-Tahar M, Sitaraman S, Shibahara T, Madara JL: Negative regulation of epithelium-neutrophil interactions via activation of CD44. Am J Physiol Cell Physiol. 2001 Mar; 280(3):C423-32. < PMID: 11171560 >
- Xu H, Manivannan A, Liversidge J, Sharp PF, Forrester JV, Crane IJ: Involvement of CD44 in leukocyte trafficking at the blood-retinal barrier. J Leukoc Biol. 2002 Dec; 72(6):1133-41. < PMID: 12488494 >

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- Legg JW, Lewis CA, Parsons M, Ng T, Isacke CM: A novel PKC-regulated mechanism controls CD44 ezrin association and directional cell motility. Nat Cell Biol. 2002 Jun; 4(6):399-407. < PMID: 12032545 >
- McKallip RJ, Do Y, Fisher MT, Robertson JL, Nagarkatti PS, Nagarkatti M: Role of CD44 in activation-induced cell death: CD44-deficient mice exhibit enhanced T cell response to conventional and superantigens. Int Immunol. 2002 Sep; 14(9):1015-26. < PMID: 12202399 >
- Katoh S, Matsumoto N, Kawakita K, Tominaga A, Kincade PW, Matsukura S: A role for CD44 in an antigen-induced murine model of pulmonary eosinophilia. J Clin Invest. 2003 May; 111(10):1563-70. < PMID: 12750406 >
- van Royen N, Voskuil M, Hoefer I, Jost M, de Graaf S, Hedwig F, Andert JP, Wormhoudt TA, Hua J, Hartmann S, Bode C, Buschmann I, Schaper W, van der Neut R, Piek JJ, Pals ST: CD44 regulates arteriogenesis in mice and is differentially expressed in patients with poor and good collateralization. Circulation. 2004 Apr 6; 109(13):1647-5. < PMID: 15023889 >
- Larkin J, Renukaradhya GJ, Sriram V, Du W, Gervay-Hague J, Brutkiewicz RR: CD44 differentially activates mouse NK T cells and conventional T cells. J Immunol. 2006 Jul 1; 177(1):268-79. < PMID: 16785522 >
- Hegde VL, Singh NP, Nagarkatti PS, Nagarkatti M: CD44 mobilization in allogeneic dendritic cell-T cell immunological synapse plays a key role in T cell activation. J Leukoc Biol. 2008 Jul; 84(1):134-42. < PMID: 18388297 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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