Thermo SCIENTIFIC

RESEARCH USE ONLY DATA SHEET

Rev 112102I

Clinical customers please refer to IVD / ASR Data Sheet

CD44 Std. / HCAM Ab-4 (Clone 156-3C11)

Mouse Monoclonal Antibody

Cat. #MS-668-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200µg/ml) (Purified Ab with BSA and Azide)
Cat. #MS-668-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #MS-668-B0, -B1, or -B (0.1ml or 0.5ml or 1.0ml at 200µg/ml) (Biotin-Labeled Ab with BSA and Azide)
Cat. #MS-668-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)
Cat. #MS-668-PCS (5 Slides) (Positive Control for Histology)
Cat. #MS-668-PCL (0.1ml) (Positive Control for Western Blot)

Description: CD44 is a cell surface glycoprotein expressed on lymphocytes, monocytes, and granulocytes. CD44 is also known as homing cell adhesion molecule (H-CAM), Phagocytic glycoprotein-1 (PgP-1), ECM-III, HUTCH-1, or Hermes-1. CD44 has been implicated in cell migration, in lymphocyte homing, and in tumor metastasis.

Comments: Ab-4 reacts with red cells pretreated with 2-aminoethylisothiouronium bromide (AET).[1] Digestion of intact erythrocytes by trypsin treatment leaves a 50-54kDa protein fragment attached to the membrane, while chymotrypsin leaves a somewhat similarly sized 51-56kDa component that are recognized by Ab-4.[1] This antibody enhances IL-2 production by CD2-transfected murine hybridoma stimulated by JY cells while it has no significant effect on IL-2 production by Jurkat cells stimulated with CD3, PMA, or CD2.[1] Ab-4 enhances proliferation of PBL stimulated with CD2.[1]

Mol. Wt. of Antigen: 80-95kDa

Epitope: Resistant to digestion by trypsin and chymotrypsin.[1]

Species Reactivity: Human,[1] Baboon,[1] and Green Monkey.[1] Does not react with rat. Others-not tested.

Clone Designation: 156-3C11

Ig Isotype: IgG_{2a}

Immunogen: Stimulated human leukocytes.

Applications and Suggested Dilutions:

- Flow Cytometry
- Immunoprecipitation (Native verified)
  (Use Protein A) (Ab 2µg/mg protein lysate)
- Western Blotting (Ab 1-2µg/ml for 2hrs at RT)
- Immunohistology (Formalin/paraffin)
  (Use Ab 1-2µg/ml for 30 min at RT)

* [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 10mM citrate buffer, pH 6.0, (***NEOMARKERS'*** Cat. #AP-9003), for 10-20 min followed by cooling at RT for 20 min.]

The optimal dilution for a specific application should be determined by the investigator.

Positive Control: HUVEC or HeLa cells. Tonsil or esophageal carcinoma.

Cellular Localization: Cell membrane

Storage and Stability: Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

Supplied As: 200µg/ml antibody purified from the ascites fluid by Protein A chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml**, or** Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

Key References:

1. Schlossman SF, *et. al.* Leucocyte Typing V, p1713-1719, Oxford Univ. Press, 1995.

Limitations and Warranty:

Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the actual price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

Material Safety Data:

This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

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Suggested References:

1. Chaudhry A; Gobl A; Eriksson B; Skogseid B; Oberg K. Different splice variants of CD44 are expressed in gastrinomas but not in other subtypes of endocrine pancreatic tumors. Cancer Research, 1994, 54(4):981-6.

2. Hughes DE; Salter DM; Simpson R. CD44 expression in human bone: a novel marker of osteocytic differentiation. Journal of Bone and Mineral Research, 1994, 9(1):39-44.

3. Penno MB; August JT; Baylin SB; Mabry M; Linnoila RI; Lee VS; Croteau D; Yang XL; Rosada C. Expression of CD44 in human lung tumors. Cancer Research, 1994, 54(5):1381-7.

4. Abbasi AM; Chester KA; Talbot IC; Macpherson AS; Boxer G; Forbes A; Malcolm AD; Begent RH. CD44 is associated with proliferation in normal and neoplastic human colorectal epithelial cells. European Journal of Cancer, 1993, 29A(14):1995-2002.

5. Aho R; Ekfors T; Haltia M; Kalimo H. Pathogenesis of primary central nervous system lymphoma: invasion of malignant lymphoid cells into and within the brain parenchyme. Acta Neuropathologica, 1993, 86(1):71-6.

6. East JA; Mitchell SD; Hart IR. Expression and function of the CD44 glycoprotein in melanoma cell lines. Melanoma Research, 1993, 3(5):341-6.

7. Fukazawa H; Yoshida K; Ichinohasama R; Sawai T; Hiromatsu Y; Mori K; Kikuchi K; Aizawa Y; Abe K; Wall JR. Expression of the Hermes-1 (CD44) and ICAM-1 (CD54) molecule on the surface of thyroid cells from patients with Graves' disease. Thyroid, 1993, 3(4):285-9.

8. Heider KH; Dammrich J; Skroch-Angel P; Muller-Hermelink HK; Vollmers HP; Herrlich P; Ponta H. Differential expression of CD44 splice variants in intestinal- and diffuse-type human gastric carcinomas and normal gastric mucosa. Cancer Research, 1993, 53(18):4197-203.

9. Joensuu H; Klemi PJ; Toikkanen S; Jalkanen S. Glycoprotein CD44 expression and its association with survival in breast cancer. American Journal of Pathology, 1993, 143(3):867-74.

10. Johnson BA; Haines GK; Harlow LA; Koch AE. Adhesion molecule expression in human synovial tissue. Arthritis and Rheumatism, 1993, 36:137-46.

11. Messadi DV; Bertolami CN. CD44 and hyaluronan expression in human cutaneous scar fibroblasts. American Journal of Pathology, 1993, 142(4):1041-9.

12. Penneys NS. CD44 expression in normal and inflamed skin. Journal of Cutaneous Pathology, 1993, 20(3):250-3.

13. Underhill CB; Nguyen HA; Shizari M; Culty M. CD44 positive macrophages take up hyaluronan during lung development. Developmental Biology, 1993, 155(2):324-36.

14. Wielenga VJ; Heider KH; Offerhaus GJ; Adolf GR; van den Berg FM; Ponta H; Herrlich P; Pals ST. Expression of CD44 variant proteins in human colorectal cancer is related to tumor progression. Cancer Research, 1993, 53(20):4754-6.

15. Foets BJ; van den Oord JJ; Volpes R; Missotten L. In situ immunohistochemical analysis of cell adhesion molecules on human corneal endothelial cells. British Journal of Ophthalmology, 1992, 76(4):205-9.

16. Skov BG; Hirsch FR; Bobrow L. Monoclonal antibodies in the detection of bone marrow metastases in small cell lung cancer. British Journal of Cancer, 1992, 65(4):593-6.

17. Vogel H; Butcher EC; Picker LJ. H-CAM expression in the human nervous system: evidence for a role in diverse glial interactions. Journal of Neurocytology, 1992, 21(5):363-73.

18. Wang C; Tammi M; Tammi R. Distribution of hyaluronan and its CD44 receptor in the epithelia of human skin appendages. Histochemistry, 1992, 98(2):105-12.

19. Kuppner MC; Hamou MF; de Tribolet N. Activation and adhesion molecule expression on lymphoid infiltrates in human glioblastomas. Journal of Neuroimmunology, 1990, 29(1-3):229-38.

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