

Background

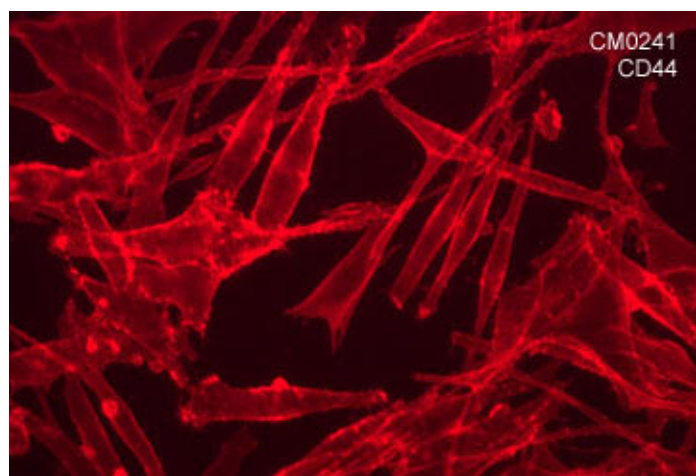
Cell surface adhesion protein CD44 is a ubiquitously expressed type I transmembrane protein that has important functions related to cell-cell adhesion and extracellular matrix interactions. The transmembrane protein is post-translationally modified at multiple sites by glycosylation and phosphorylation. Ligands for CD44 include hyaluronic acid, collagens, laminins, osteopontin, serglycin, and fibronectin. CD44 has been implicated in inflammatory cell functions as well as in tumor growth and metastasis. Overexpression of CD44 has been observed in many types of cancer, and the interaction between CD44 and HER2 has been linked to an increase in ovarian carcinoma cell growth. CD44 interacts with ezrin, radixin, and moesin to link the actin cytoskeleton to the plasma membrane and the extracellular matrix. These interactions are critical for CD44 function in cell-cell adhesion and cell motility.



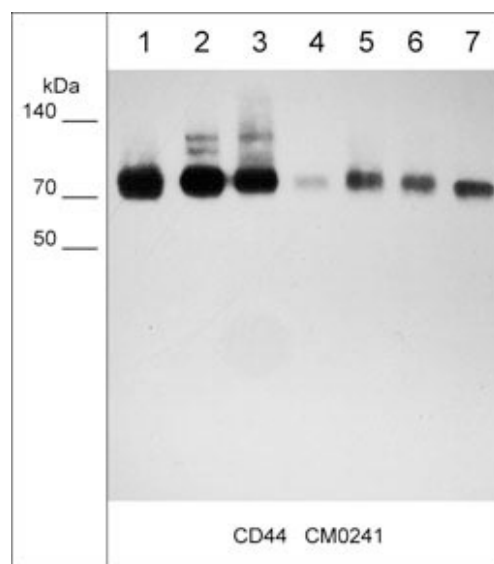
**Guaranteed
to
Outperform**

Background References

- Tsukita, S., et al. (1994) *J Cell Biol.* 126(2):391
 Goodinson, S., et al. (1999) *Mol Path.* 52(4):189
 Cichy, J., et al. (2003) *J Cell Biol.* 161(5):839



Immunocytochemical labeling of CD44 in paraformaldehyde fixed human MeWo cells. The cells were labeled with mouse monoclonal anti-CD44 (clone M024). The antibody was detected using goat anti-mouse DyLight® 594.



Western blot analysis of human A549 (lane 1), MDA-MB-231 (lane 2), and MeWo (lane 3) cell lysates, as well as human breast (lane 4), lung (lane 5), skin (lane 6), and brain (lane 7) tissue lysates. The blot was probed with mouse monoclonal anti-CD44 (CM0241) at 1:2000.

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Immunogen

Uniprot ID: P16070

Clone M024 was generated from a proprietary antigen related to the extracellular region of human CD44 expressed in the MeWo melanoma cell line.

Buffer and Storage

Mouse monoclonal antibody purified with protein G chromatography is supplied in 100 µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Applications

WB	1:1000
ELISA (Cap)	1:100
ICC	1:100
IP	1:100

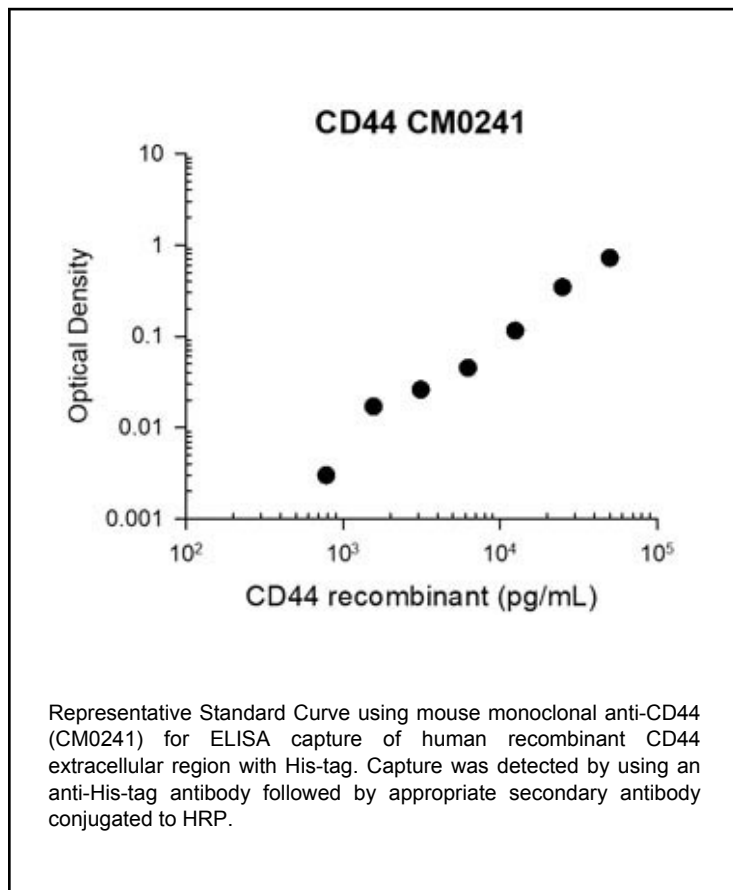
Species Reactivity

Hu

Isotype: IgG2a

End user should determine optimal dilution for their particular applications. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: E = ELISA, ELISA (Cap) = ELISA Capture ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot.
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine



Specificity

Clone M024 detects 80-130 kDa* bands corresponding to the molecular mass of CD44 on SDS-PAGE immunoblots of native human MDA-MB-231, A549, MeWo, and A431 cell lysates. The antibody also detects denatured CD44 but with lower affinity. The antibody can be used for multiple applications including ELISA, western blot, immunocytochemical labeling and immunoprecipitation. In addition, the antibody labels live unfixed MeWo cells, so the antibody may be useful for isolating CD44+ cells and for CD44 functional assays.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related Products

- CM0071 CD44 (Extracellular region) Mouse Monoclonal
- CM0101 CD44 (Extracellular region) Mouse Monoclonal
- CM5881 CD44 (Hyaluron Binding Region) Mouse Monoclonal
- CM5911 CD44 (Hyaluron Binding Region) Mouse Monoclonal
- CM0021 CD55 (Extracellular region) Mouse Monoclonal



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