

Background

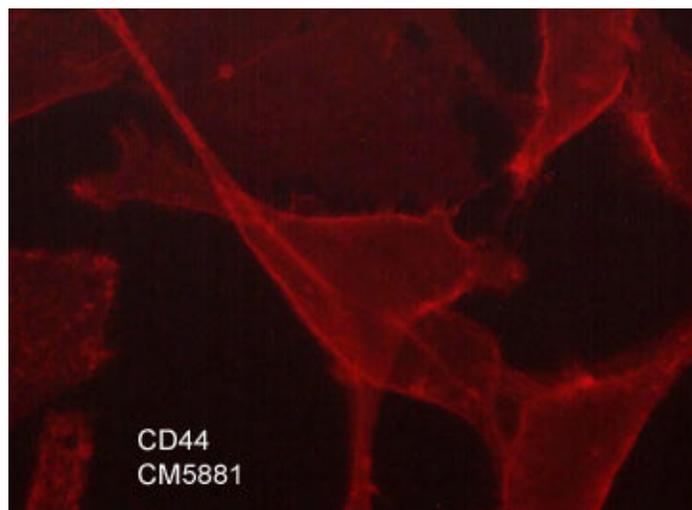
Cell surface adhesion protein CD44 is a ubiquitously expressed type I transmembrane protein that has important functions related to cell-cell adhesion and extracellular matrix interactions. The transmembrane protein is post-translationally modified at multiple sites by glycosylation and phosphorylation. CD44 ligands 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. CD44 is overexpressed in many types of cancer; 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.



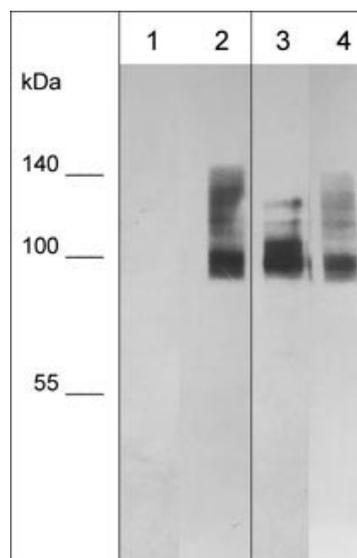
**Guaranteed
to
Outperform**

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 MDA-MB-231 cells. The cells were labeled with mouse monoclonal anti-CD44 (clone M588). The antibody was detected using goat anti-mouse DyLight® 594.



Western blot analysis of denatured (lanes 1 & 3) and native (lanes 2 & 4) human MDA-MB-231 whole cell lysates. The blots were probed with mouse monoclonal anti-CD44 (CM5881) at 1:1000 (lanes 1 & 2) or mouse monoclonal anti-CD44 (CM5911) at 1:1000 (lanes 3 & 4).

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Immunogen **Uniprot ID: P16070**

Clone M588 was generated from a proprietary antigen related to the hyaluron binding region of human CD44 from the MDA-MB-231 breast cancer 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	1:2000
ICC	1:100
IP	1:100

Species Reactivity

Hu

Isotype: IgG1

End user should determine optimal dilution for their particular applications and experiments.
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: ELISA (Cap) = ELISA capture, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

Clone M588 detects 80-130 kDa* bands corresponding to the molecular mass of CD44 on SDS-PAGE immunoblots of native MDA-MB-231, A431, and A549 cell lysates. The antibody also detects denatured CD44 but with lower affinity. In addition, Clone M588 binds the native form of a recombinant human CD44 protein that contains only the hyaluron binding region. The antibody can be used in multiple applications including western blot, immunocytochemical labeling, ELISA, and immunoprecipitation, as well as for detecting CD44 in live, unfixed cells.

*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

- CM5911 CD44 (Hyaluron Binding Region) Mouse Monoclonal
- OM5741 Osteopontin (N-terminal region) Mouse Monoclonal
- IK6270 Integrin β4 Phospho-Regulation Antibody Sampler Kit
- CM0071 CD44 (Extracellular region) Mouse Monoclonal
- CM0101 CD44 (Extracellular region) Mouse Monoclonal



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