

CD44 (Extracellular region)

Mouse Monoclonal IgG2b

Cat. # CM0101

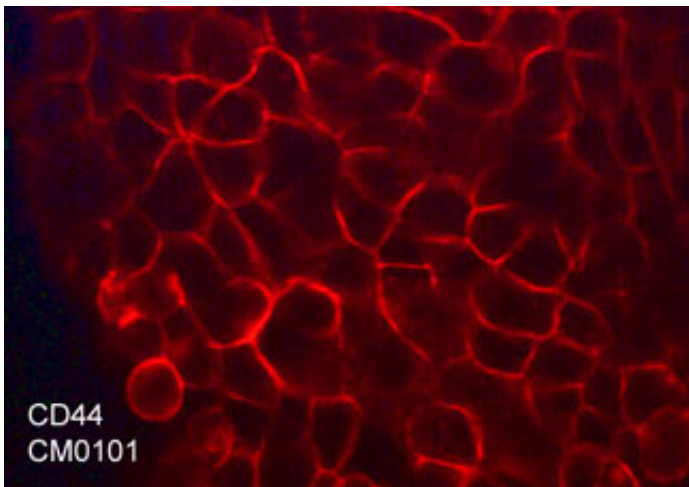
Size 100 µl

Background

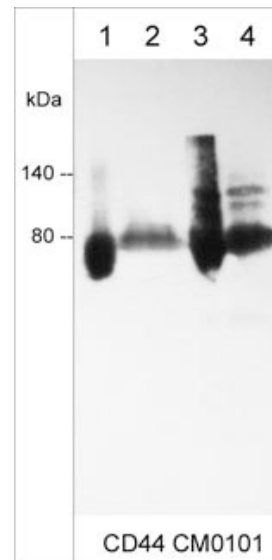
Cell surface adhesion protein CD44 is a ubiquitously expressed type I transmembrane protein that has important functions related to cell-cell adhesion and extracellular matrix interactions. The transmembrane protein is post-translationally modified at multiple sites by glycosylation and phosphorylation.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

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 A431 cells. The cells were labeled with mouse monoclonal anti-CD44 (clone M010). The antibody was detected using goat anti-mouse DyLight® 594.



Western blot analysis of human A549 (lanes 1 & 2) and human MDA-MB-231 (lanes 3 & 4) whole cell lysates under native (lanes 1 & 3) and denatured (lanes 2 & 4) conditions. The blots were probed with mouse monoclonal anti-CD44 (CM010) at 1:1000 (lanes 1-4).

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Size 100 µl

Immunogen

Clone M010 was generated from a proprietary antigen related to the extracellular region of human CD44 from the A431 epidermoid carcinoma 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	1:50

Species Reactivity

Hu

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: E = ELISA, 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 M010 detects 80-130 kDa* bands corresponding to the molecular mass of CD44 on SDS-PAGE immunoblots of native and denaturing human MDA-MB-231, A549, and A431 cell lysates. The antibody can be used for multiple applications including ELISA, western blot, immunocytochemical labeling and immunoprecipitation. In addition, the antibody labels live unfixed A549 and 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
- CM5881 CD44 (Hyaluron Binding Region) Mouse Monoclonal
- CM5911 CD44 (Hyaluron Binding Region) Mouse Monoclonal
- IK6270 Integrin β4 Phospho-Regulation Antibody Sampler Kit
- OM5741 Osteopontin (N-terminal region) Mouse Monoclonal

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