

#3570 Store at -20°C

CD44 (156-3C11) Mouse mAb

100 μl
 (10 western blots)



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rev. 05/25/10

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

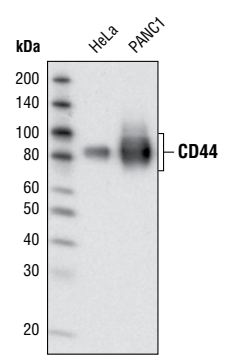
| Applications | Species Cross-Reactivity* | Molecular Wt. | Isotype |
|--------------------------------------|---------------------------|---------------|---------------|
| W, IP, IHC-P, IF-IC, F Endogenous | H | 80 kDa | Mouse IgG2a** |

Background: CD44 is a type I transmembrane glycoprotein that mediates cell-cell and cell-matrix interaction through its affinity for hyaluronic acid (HA) and possibly through other parts of the extracellular matrix (ECM). CD44 is highly polymorphic, possesses a number of alternative splice variants and undergoes extensive post-translational modifications (1–2). Increased surface levels of CD44 are characteristic of T cell activation, and expression of the protein is upregulated during the inflammatory response. Interactions between CD44 and HER2 have been linked to an increase in ovarian carcinoma cell growth (1–3).

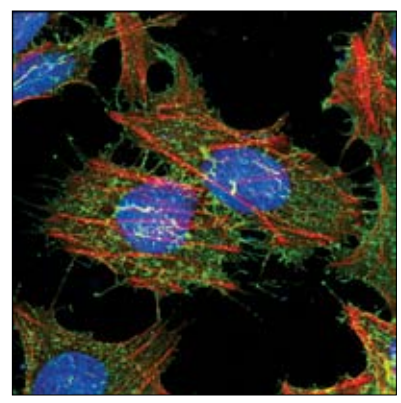
CD44 interacts with ezrin, radixin and moesin (ERM), linking the actin cytoskeleton to the plasma membrane and the ECM (4–6). CD44 is constitutively phosphorylated at Ser325 in resting cells. Activation of PKC results in phosphorylation of Ser291, dephosphorylation of Ser325, disassociation of ezrin from CD44 and directional motility (4).

Specificity/Sensitivity: CD44 (156-3C11) Mouse mAb detects endogenous levels of total CD44 protein.

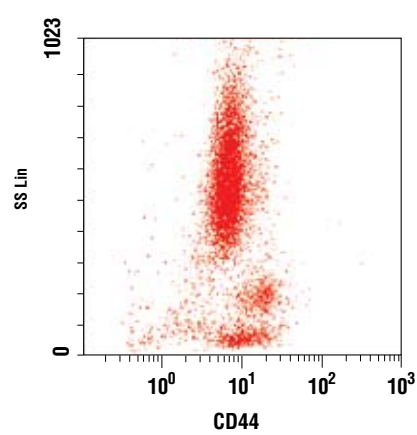
Source/Purification: Monoclonal antibody is produced by immunizing BALB/c mice with stimulated human leukocytes.



Western blot analysis of extracts from HeLa and PANC1 cell lines using CD44 (156-3C11) Mouse mAb.



Confocal immunofluorescent analysis of HeLa cells using CD44 (156-3C11) Mouse mAb (green). Actin filaments have been labeled with Alexa Fluor[®] 555 phalloidin (red). Blue pseudo-color = DRAQ5[®] #4084 (fluorescent DNA dye).



Flow cytometric analysis of whole blood using CD44 (156-3C11) Mouse mAb.

Entrez-Gene ID #960
Swiss-Prot Acc. #P16070

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 $\mu\text{g/ml}$ BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.
***Species cross-reactivity is determined by Western blot.**

****Anti-mouse secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

| | |
|---------------------------------|---|
| Western blotting | 1:1000 |
| Immunoprecipitation | 1:50 |
| Immunohistochemistry (Paraffin) | 1:50 |
| Unmasking buffer: | Citrate |
| Antibody diluent: | SignalStain [®] Antibody Diluent #8112 |
| Immunofluorescence (IF-IC) | 1:400 |
| Flow Cytometry | 1:100 |

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

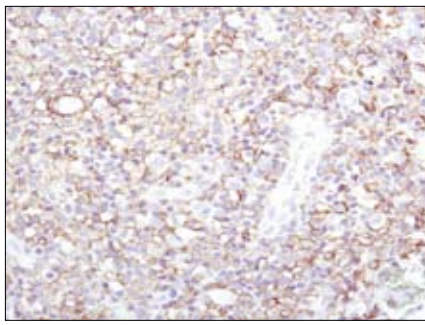
Background References:

- (1) Goodison, S. et al. (1999) *Mol. Pathol.* 52, 189–196.
- (2) Cichy, J. and Puré, E. (2003) *J. Cell Biol.* 161, 839–843.
- (3) Bourguignon, L.Y. et al. (1997) *J. Biol. Chem.* 272, 27913–27918.
- (4) Legg, J.W. et al. (2002) *Nat. Cell Biol.* 4, 399–407.
- (5) Yonemura, S. et al. (1998) *J. Cell Biol.* 140, 885–895.
- (6) Tsukita, S. et al. (1994) *J. Cell Biol.* 126, 391–401.

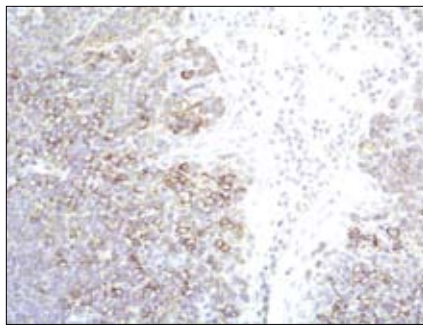
IMPORTANT: For Western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

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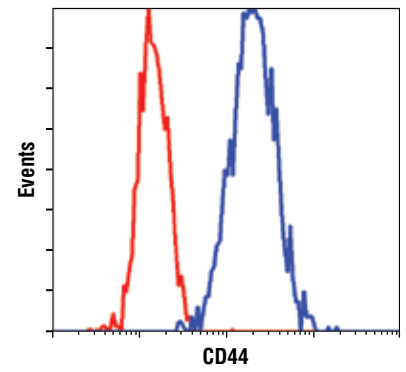
Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of human Non-Hodgkin's lymphoma using CD44 (156-3C11) Mouse mAb.



Immunohistochemical analysis of human tonsil using CD44 (156-3C11) Mouse mAb.



Flow cytometric analysis of HeLa cells using CD44 (156-3C11) Mouse mAb (blue) compared to a nonspecific negative control antibody (red).