

Store at
-20°C

CD44 (8E2) Mouse mAb

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#5640

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orders@cellsignal.comEntrez-Gene ID #960
UniProt ID #P16070

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For Research Use Only. Not For Use In Diagnostic Procedures.**Applications**
W, IP, IF-IC, F
Endogenous**Species Cross-Reactivity***
H, R**Molecular Wt.**
80 kDa**Isotype**
Mouse IgG1**

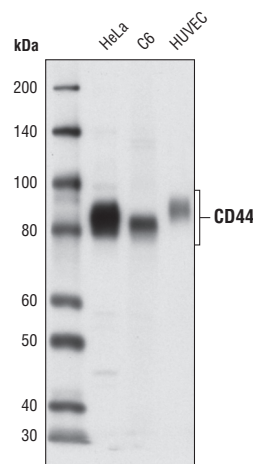
Background: CD44 is a type I transmembrane glycoprotein that mediates cell-cell and cell-matrix interaction through its affinity for hyaluronic acid (HA) and possibly through other parts of the extracellular matrix (ECM). CD44 is highly polymorphic, possesses a number of alternative splice variants and 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. Research studies have shown that interactions between CD44 and HER2 are 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 (8E2) Mouse mAb detects endogenous levels of total CD44 protein.

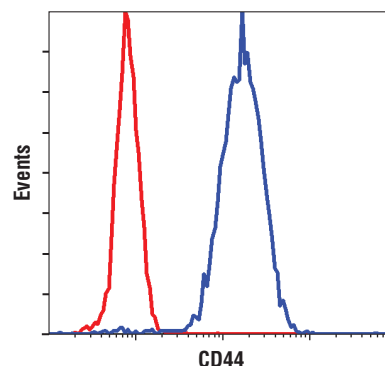
Source/Purification: Monoclonal antibody is produced by immunizing BALB/c mice with purified recombinant CD44 protein. This antibody recognizes residues surrounding Thr720 of human CD44.

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.



Western blot analysis of extracts from HeLa, C6 and HUVEC cells using CD44 (8E2) Mouse mAb.



Flow cytometric analysis of HeLa cells using CD44 (8E2) Mouse mAb (blue) compared to a nonspecific negative control antibody (red).

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Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. *Do not aliquot the antibody.*

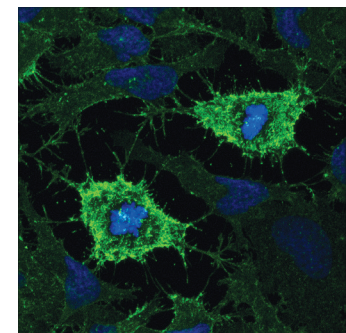
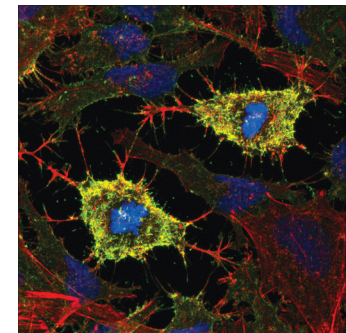
***Species cross-reactivity is determined by western blot.**

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

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-IC)	1:1600
Flow Cytometry	1:800

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com



Projected confocal z-stack of HeLa cells using CD44 (8E2) Mouse mAb (green). Actin filaments have been labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** 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.