Revision 5

Store at -20C

#37259

CD44 (E7K2Y) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-Bond, IHC-P	H M R	Endogenous	80	Rabbit IgG	#P16070	960

Product Usage Information

Application	Dilution
Western Blotting	1:1000
IHC Leica Bond	1:150 - 1:600
Immunohistochemistry (Paraffin)	1:75 - 1:300

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.*

For a carrier free (BSA and azide free) version of this product see product #96848.

Specificity/Sensitivity

CD44 (E7K2Y) XP® Rabbit mAb recognizes endogenous levels of total CD44 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro136 of human CD44 protein. This sequence region is conserved in all isoforms of CD44 reported in Uniprot, with the exception of isoform 2 and isoform 19.

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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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