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CD44 Antibody

Store at -20C
#3578

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 80	Source/Isotype: Rabbit	UniProt ID: #P16070	Entrez-Gene Id: 960
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

CD44 Antibody detects endogenous levels of total CD44 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Leu135 of human CD44. Antibodies are purified by peptide affinity chromatography.

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

Cross-Reactivity Key

H: Human

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