Revision 1

Store at -20C

#2099

ADAM9 Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	100 pro-ADAM9-L, 80 ADAM9-L	Rabbit	#Q13443	8754

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

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

ADAM9 Antibody detects endogenous levels of total ADAM9 protein, unprocessed and active forms. The antibody does not recognize the carboxy terminally truncated short form of ADAM9. In some cell types, the antibody cross-reacts with a 50 kDa band of unknown origin.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy terminus of human ADAM9. Antibodies are purified using protein A and peptide affinity chromatography.

Background

The ADAM (A Disintegrin and A Metalloprotease) family of multidomain membrane proteins influences cell signaling and adhesion by shedding cell surface proteins such as cytokines and growth factors, by influencing cell adhesion to the extracellular matrix (ECM), and by directly remodeling the ECM. Conserved domains in ADAM family members include a prodomain, a zinc-dependent metalloprotease domain, a disintegrin domain, a cysteine-rich domain, an EGF-like sequence, and a short cytoplasmic tail (1,2). The prodomain is thought to aid in protein folding. Disintegrin and cysteine-rich domains mediate adhesion, at least in part, through binding to integrins. Phosphorylation of the cytoplasmic tail as well as its interaction with other signaling proteins may influence intra- and extracellular signaling (1). ADAM9 is widely distributed and has been shown to affect migration in skin keratinocytes (3,4). Research studies have shown that ADAM9 is overexpressed in prostate cancer (5), pancreatic cancer (6), gastric cancer (7), and has been linked to invasion and metastasis in small cell lung cancer (8). Research has also shown that an alternatively spliced short (50 kDa) form of ADAM9 containing protease activity is involved in tumor cell invasion (9).

Background References

1. N. M. Hooper and U. Lendeckel. . The Netherlands: Springer, 2005
2. Schlöndorff, J. and Blobel, C.P. (1999) *J Cell Sci* 112 (Pt 21), 3603-17.
3. Franzke, C.W. et al. (2002) *EMBO J* 21, 5026-35.
4. Zigrino, P. et al. (2007) *J Biol Chem* 282, 30785-93.
5. Fritzsche, F.R. et al. (2008) *Eur Urol* 54, 1097-106.
6. Grützmann, R. et al. (2004) *Br J Cancer* 90, 1053-8.
7. Carl-McGrath, S. et al. (2005) *Int J Oncol* 26, 17-24.
8. Shintani, Y. et al. (2004) *Cancer Res* 64, 4190-6.
9. Mazzocca, A. et al. (2005) *Cancer Res* 65, 4728-38.

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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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 **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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