

ADAM9 Antibody

100 µl
 (10 western mini-blots)

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rev 1/14/10

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. | Source |
|---------------------|---------------------------|--|----------|
| W, IP Endogenous | H, M, R, Mk | 100 pro-ADAM9-L, 80 ADAM9-L, 50 ADAM9-S | Rabbit** |

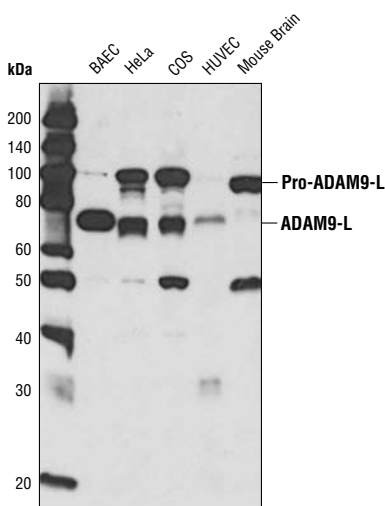
Background: The ADAM (A Disintegrin and A Metalloprotease) family of multidomain membrane proteins influences cell signaling and adhesion by shedding cell surface proteins such as cytokines and growth factors, by influencing cell adhesion to the extracellular matrix (ECM), and by directly remodeling 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).

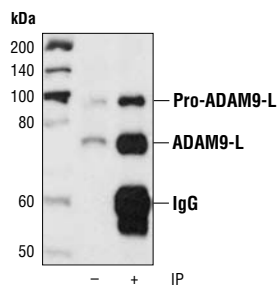
ADAM9 is widely distributed and has been shown to affect migration in skin keratinocytes. (3,4). ADAM9 is overexpressed in prostate cancer (5), pancreatic cancer (6), gastric cancer (7) and has been linked to invasion and metastasis in small cell lung cancer (8). An alternatively spliced short (50 kDa) form of ADAM9 containing protease activity is involved in tumor cell invasion (9).

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 (KLH-coupled) corresponding to the carboxy terminus of human ADAM9. Antibodies are purified using protein A and peptide affinity chromatography.



Western blot analysis of extracts from various cell types using ADAM9 Antibody.



Immunoprecipitation of ADAM9 from HeLa cell extracts using ADAM9 Antibody. Western blot was performed using the same antibody.

Entrez-Gene ID #8754
Swiss-Prot Acc. #Q13443

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.

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

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

Recommended Antibody Dilutions:

Western blotting 1:1000
 Immunoprecipitation 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) N. M. Hooper and U. Lendeckel. The Adam Family Of Proteases. 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. (2007) *Eur Urol*, Epub ahead of print.
- (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.

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.