

DESCRIPTION

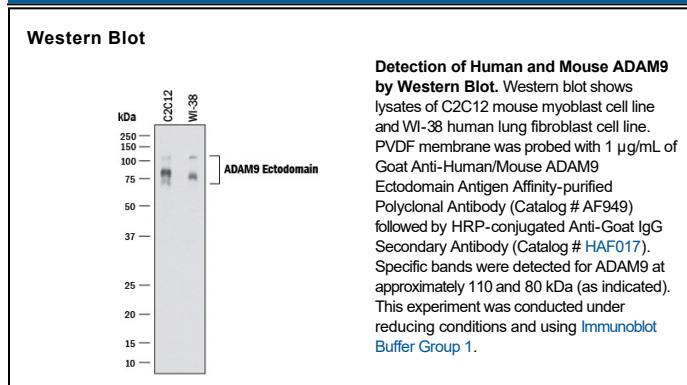
Species Reactivity	Human/Mouse
Specificity	Detects mouse ADAM9 Ectodomain in direct ELISAs and Western blots. In Western blots no cross-reactivity with the Ectodomain of recombinant mouse ADAM10 and rhADAM8, 15, and 17 (TACE) is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse ADAM9 Ala206-Asp697 Accession # Q61072
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Flow Cytometry	0.25 µg/10 ⁶ cells	Mouse splenocytes
Immunohistochemistry	5-15 µg/mL	Perfusion fixed frozen sections of mouse testis
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse ADAM9 (Catalog # 949-AD), see our available Western blot detection antibodies
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

ADAM9, also known as MDC9 or meltrin γ , is a member of the ADAM family that contains a disintegrin and metalloprotease-like domain (1). Like other membrane-anchored ADAMs, ADAM9 consists of a pro domain with a cysteine switch and furin cleavage sequence, a catalytic domain with the zinc-binding site and Met-turn expected for reprolysins, a disintegrin-like domain, a cysteine-rich domain, an EGF-like domain, a transmembrane domain, and the cytoplasmic domain. ADAM9 is able to cleave peptides corresponding to cleavage sites of tumor necrosis factor- α (TNF- α), the p75-TNF receptor, the β -amyloid protein precursor, and the c-kit ligand-1, implying that it may participate in shedding of these membrane proteins (2). In fact, ADAM9 has been shown to shed membrane-anchored heparin-binding EGF-like growth factor (3). In addition, it also cleaves oxidized insulin B-chain and fibronectin (2, 4). Besides its catalytic activity, ADAM9 functions as an adhesion molecule through binding of its disintegrin domain to integrins such as $\alpha_v\beta_5$ and $\alpha_6\beta_1$ (5, 6). The cytoplasmic domain of ADAM9 interacts with Src homology 3 (SH3)-containing proteins and protein kinase C, and may mediate different signaling pathways (3, 7). ADAM9 is widely expressed in tissues (8).

References:

1. Moss, M.L. *et al.* (2001) *Drug Discov. Today* **6**:417.
2. Roghani, M. *et al.* (1999) *J. Biol. Chem.* **274**:3531.
3. Izumi, Y. *et al.* (1998) *EMBO J.* **17**:7260.
4. Schwettmann, L. and H. Tschesche (2001) *Protein. Expr. Purif.* **21**:65.
5. Nath, D. *et al.* (2000) *J. Cell Sci.* **113**:2319.
6. Zhou, M. *et al.* (2001) *Biochem. Biophys. Res. Comm.* **280**:574.
7. Howard, L. *et al.* (1999) *J. Biol. Chem.* **274**:31693.
8. Weskamp, G. *et al.* (1996) *J. Cell Biol.* **132**:717.