# Human/Mouse ADAM9 Ectodomain Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF949

## 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<br>Ala206-Asp697<br>Accession # Q61072 |
| **Formulation** | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS. |

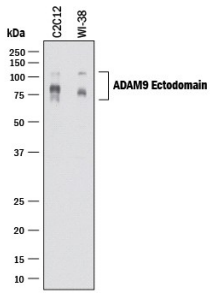
## APPLICATIONS

**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 |

## DATA

### Western Blot




**Detection of Human and Mouse ADAM9 by Western Blot.** Western blot shows lysates of C2C12 mouse myoblast cell line and WI-38 human lung fibroblast cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse ADAM9 Ectodomain Antigen Affinity-purified Polyclonal Antibody (Catalog # AF949) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). Specific bands were detected for ADAM9 at approximately 110 and 80 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

## PREPARATION AND STORAGE

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|---|---|
| **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.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 6 months, -20 to -70 °C under sterile conditions after reconstitution. |



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## 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 molelcule 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:**

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