Human ADAM9 Ectodomain Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF939

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human ADAM9 Ectodomain in ELISAs and Western blots. In sandwich immunoassays, approximately 20% cross-reactivity with recombinant mouse (rm) rmADAM9 is observed and less than 0.05% cross-reactivity with recombinant human (rh) rhADAM8, rhADAM10, rhTACE, rhTIMP-1, rhTIMP-2, rhTIMP-3, rhTIMP-4, rhBACE-1 and rmADAM10 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human ADAM9 Ala206-Asp697 Accession # Q13443
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 as a 0.2 µm filtered solution in PBS.

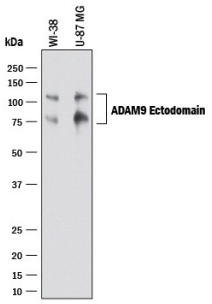
APPLICATIONS

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
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human ADAM9 (Catalog # 939-AD), see our available Western blot detection antibodies
Human ADAM9 Sandwich Immunoassay		**Reagent**
ELISA Capture	0.2-0.8 µg/mL	Human ADAM9 Ectodomain Antibody (Catalog # AF939)
ELISA Detection	0.1-0.4 µg/mL	Human ADAM9 Ectodomain Biotinylated Antibody (Catalog # BAF939)
Standard		Recombinant Human ADAM9 (Catalog # 939-AD)

DATA

Western Blot



Detection of Human ADAM9 by Western Blot. Western blot shows lysates of WI-38 human lung fibroblast cell line and U-87 MG human glioblastoma/astrocytoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human ADAM9 Ectodomain Antigen Affinity-purified Polyclonal Antibody (Catalog # AF939) 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

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	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 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.

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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 β-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:

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