

ADAMTS1 (D5G4Z) Rabbit mAb

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

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 110	Source/Isotype: Rabbit IgG	UniProt ID: #Q9UHI8	Entrez-Gene Id: 9510
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

ADAMTS1 (D5G4Z) Rabbit mAb recognizes endogenous levels of total ADAMTS1 protein. This antibody does not cross-react with other ADAM or ADAMTS proteins.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg187 of human ADAMTS1 protein.

Background

A Disintegrin and Metalloprotease with Thrombospondin Motifs (ADAMTS) proteins comprise a large family of secreted zinc metalloproteases that play important roles in various processes, including organogenesis, hemostasis, and angiogenesis (1,2). ADAMTS proteases show structural similarity to ADAM proteases, but are further defined by the presence of repeated carboxy-terminal motifs homologous to the anti-angiogenic type 1 repeats of thrombospondin-1 (3). Functions ascribed to ADAMTS proteases include regulating the extracellular bioavailability of cytokines and growth factors (4, 5), regulating cell adhesion to the extracellular matrix (ECM), and remodeling of the ECM (6). ADAMTS1 has been shown to possess potent anti-angiogenic activity *in vitro* (2) and is reportedly dysregulated in a number of cancer subtypes (7). Functional *in vivo* studies in an ADAMTS1 knockout mouse model suggested that ADAMTS1 promotes metastatic invasion of breast carcinoma cells (8). These studies showed a reduced tumor burden in ADAMTS1 knockout mice, which was linked to increased cytotoxic immune cell invasion and reduced tumor cell survival (8).

Background References

1. Tang, B.L. and Hong, W. (1999) *FEBS Lett* 445, 223-5.
2. Apte, S.S. (2009) *J Biol Chem* 284, 31493-7.
3. Vázquez, F. et al. (1999) *J Biol Chem* 274, 23349-57.
4. Luque, A. et al. (2003) *J Biol Chem* 278, 23656-65.
5. Lu, X. et al. (2009) *Genes Dev* 23, 1882-94.
6. Kuno, K. et al. (1999) *J Biol Chem* 274, 18821-6.
7. Mochizuki, S. and Okada, Y. (2007) *Cancer Sci* 98, 621-8.
8. Ricciardelli, C. et al. (2011) *Am J Pathol* 179, 3075-85.

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

W: Western Blotting

Cross-Reactivity Key

H: Human

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