

#8946 Store at -20C

TIMP1 (D10E6) Rabbit mAb**Cell Signaling**
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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IHC-P	H Mk	Endogenous	26	Rabbit IgG	#P01033	7076

Product Usage Information**Application**Western Blotting
Immunohistochemistry (Paraffin)**Dilution**1:1000
1:1000 - 1:4000**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.

For a carrier free (BSA and azide free) version of this product see product #76074.

Specificity / Sensitivity

TIMP1 (D10E6) Rabbit mAb recognizes endogenous levels of total TIMP1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala134 of human TIMP1 protein.

Background

TIMPs are members of the family of tissue inhibitors of matrix metalloproteinases (MMPs) that includes TIMP1, TIMP2, TIMP3, and TIMP4. The main function of TIMPs is their inhibitory effect on MMPs. TIMPs irreversibly inactivate MMPs by directly binding to their catalytic zinc cofactor and resultant inhibition of proteinase function (1,2). In addition to MMP inhibition, TIMPs have also been shown to interact with various membrane receptors on the cell surface. Some of these interactions include TIMP1 with CD63, TIMP2 with $\alpha 3 \beta 1$ integrin, and TIMP3 with VEGFR2, all of which result in distinct cellular effects (3). TIMPs are involved in a wide variety of biological functions, such as tumor angiogenesis and progression (4,5), wound healing, and vascular remodeling (6,7). Mutations in TIMP3 are associated with Sorsby's fundus dystrophy (8,9).

Background References

1. Nagase, H. et al. (2006) *Cardiovasc Res* 69, 562-73.
2. Visse, R. and Nagase, H. (2003) *Circ Res* 92, 827-39.
3. Stetler-Stevenson, W.G. (2008) *Sci Signal* 1, re6.
4. Noel, A. et al. (2004) *J Clin Pathol* 57, 577-84.
5. Hojilla, C.V. et al. (2003) *Br J Cancer* 89, 1817-21.
6. Gill, S.E. and Parks, W.C. (2008) *Int J Biochem Cell Biol* 40, 1334-47.
7. Raffetto, J.D. and Khalil, R.A. (2008) *Biochem Pharmacol* 75, 346-59.
8. Weber, B.H. et al. (1994) *Nat Genet* 8, 352-6.
9. Yeow, K.M. et al. (2002) *Matrix Biol* 21, 75-88.

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 BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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