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Anti-TIMP3 Picoband Antibody

Catalog # ABO10081

Product Information

Application	WB, E
Primary Accession	P35625
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Metalloproteinase inhibitor 3(TIMP3) detection. Tested with WB, ELISA in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	7078
Other Names	Metalloproteinase inhibitor 3, Protein MIG-5, Tissue inhibitor of metalloproteinases 3, TIMP-3, TIMP3
Calculated MW	24145
Application Details	ELISA , 0.1-0.5 □g/ml, Human, - Western blot, 0.1-0.5 □g/ml, Mouse, Rat, Human
Subcellular Localization	Secreted, extracellular space, extracellular matrix.
Source	Eukaryota
Protein Name	Metalloproteinase inhibitor 3
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human TIMP3 (107-141aa RVYDGKMYTGLCNFVERWDQLTLSQRKGLNYRYHL), different from the related mouse and rat sequences by two amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

Protein Information

Name	TIMP3
Function	Mediates a variety of processes including matrix regulation and turnover, inflammation, and angiogenesis, through reversible inhibition of zinc protease superfamily enzymes, primarily matrix metalloproteinases (MMPs). Regulates extracellular matrix (ECM) remodeling through inhibition of matrix metalloproteinases (MMP) including MMP-1, MMP-2, MMP-3, MMP-7, MMP-9, MMP-13, MMP-14 and MMP-15. Additionally, modulates the processing of amyloid precursor protein (APP) and apolipoprotein E receptor ApoER2 by inhibiting two alpha- secretases ADAM10 and ADAM17 (PubMed:17913923). Functions as a tumor suppressor and a potent inhibitor of angiogenesis. Exerts its anti- angiogenic effect by directly interacting with vascular endothelial growth factor (VEGF) receptor-2/KDR, preventing its binding to the VEGFA ligand (PubMed:12652295). Selectively induces apoptosis in angiogenic endothelial cells through a caspase-independent cell death pathway (PubMed:25558000). Mechanistically, inhibits matrix-induced focal adhesion kinase PTK2 tyrosine phosphorylation and association with paxillin/PXN and disrupts the incorporation of ITGB3, PTK2 and PXN into focal adhesion contacts on the matrix (PubMed:25558000).
Cellular Location	Secreted, extracellular space, extracellular matrix

Background

Metalloproteinase inhibitor 3 is a protein that in humans is encoded by the TIMP3 gene. It is mapped to 22q12.1-q13.2. This gene belongs to the tissue inhibitor of metalloproteinases gene family. The proteins encoded by this gene family are inhibitors of the matrix metalloproteinases, a group of peptidases involved in degradation of theextracellular matrix (ECM). Expression of this gene is induced in response to mitogenic stimulation and this netrin domain-containing protein is localized to the ECM. Mutations in this gene have been associated with the autosomal dominant disorder Sorsby's fundus dystrophy.

Images

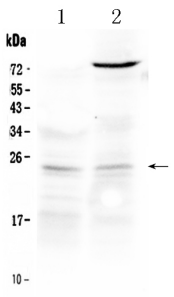


Figure 1. Western blot analysis of TIMP3 using anti-TIMP3 antibody (ABO10081). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat kidney tissue lysates, Lane 2: NIH3T3 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- TIMP3 antigen affinity purified polyclonal antibody (Catalog # ABO10081) at 0.5 □¼g/mL overnight at 4 □°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for TIMP3 at approximately 24KD. The expected band size for TIMP3 is at 24KD.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.