

**Anti-TIMP4 Picoband Antibody**  
Catalog # ABO10331**Specification**

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**Anti-TIMP4 Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">Q99727</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Metalloproteinase inhibitor 4(TIMP4) detection. Tested with WB, IHC-P, ELISA in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-TIMP4 Picoband Antibody - Additional Information**

**Gene ID** 7079

**Other Names**

Metalloproteinase inhibitor 4, Tissue inhibitor of metalloproteinases 4, TIMP-4, TIMP4

**Calculated MW**

25503 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, By Heat  
<br>ELISA , 0.1-0.5 µg/ml, Human, -<br>Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat<br>

**Subcellular Localization**

Secreted.

**Tissue Specificity**

Abundant in heart and present at low levels in many other tissues.

**Protein Name**

Metalloproteinase inhibitor 4

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg NaN<sub>3</sub>.

**Immunogen**

E. coli-derived human TIMP4 recombinant protein (Position: N174-P224). Human TIMP4 shares 92.2% amino acid (aa) sequence identity with both mouse and rat TIMP4.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

Storage

**At -20°C for one year. After reconstitution, 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.**

**Anti-TIMP4 Picoband Antibody - Protein Information**

**Name** TIMP4

**Function**

Complexes with metalloproteinases (such as collagenases) and irreversibly inactivates them by binding to their catalytic zinc cofactor. Known to act on MMP-1, MMP-2, MMP-3, MMP-7 and MMP-9.

**Cellular Location**

Secreted.

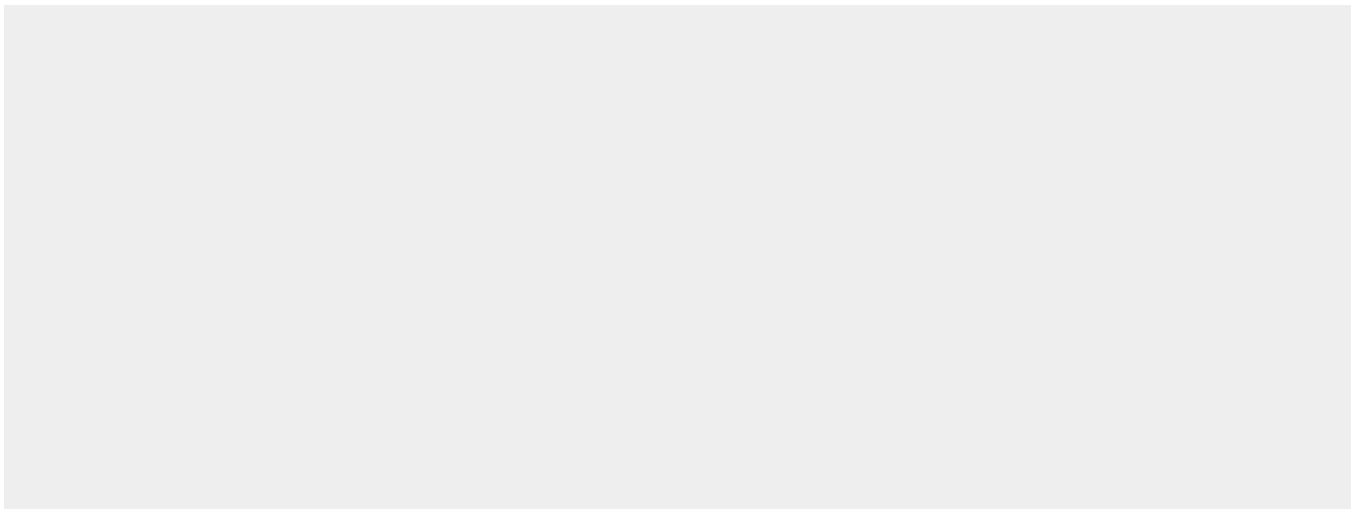
**Tissue Location**

Abundant in heart and present at low levels in many other tissues

**Anti-TIMP4 Picoband Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-TIMP4 Picoband Antibody - Images**

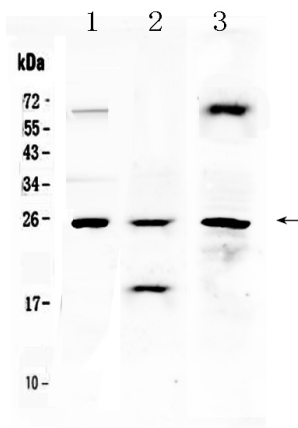


Figure 1. Western blot analysis of TIMP4 using anti- TIMP4 antibody (ABO10331). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat heart tissue lysates, Lane 2: mouse heart tissue lysates, Lane 3: HELA 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- TIMP4 antigen affinity purified polyclonal antibody (Catalog # ABO10331) at 0.5  $\mu$ g/mL overnight at 4 $^{\circ}$ 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 TIMP4 at approximately 25KD. The expected band size for TIMP4 is at 25KD.

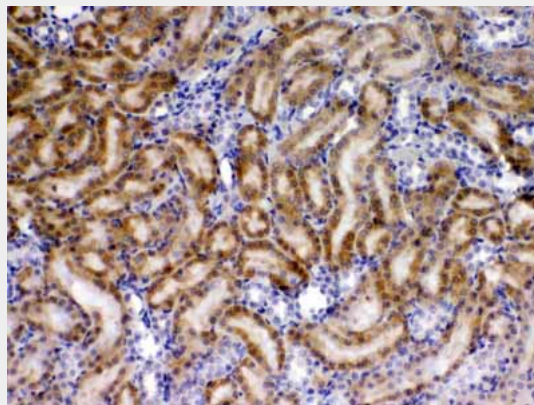


Figure 2. IHC analysis of TIMP4 using anti- TIMP4 antibody (ABO10331).TIMP4 was detected in paraffin-embedded section of rat kidney tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\frac{1}{2}$ ug/ml rabbit anti- TIMP4 Antibody (ABO10331) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

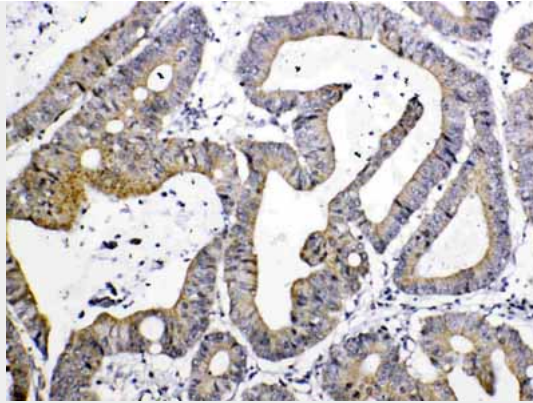


Figure 3. IHC analysis of TIMP4 using anti- TIMP4 antibody (ABO10331).TIMP4 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1½g/ml rabbit anti- TIMP4 Antibody (ABO10331) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

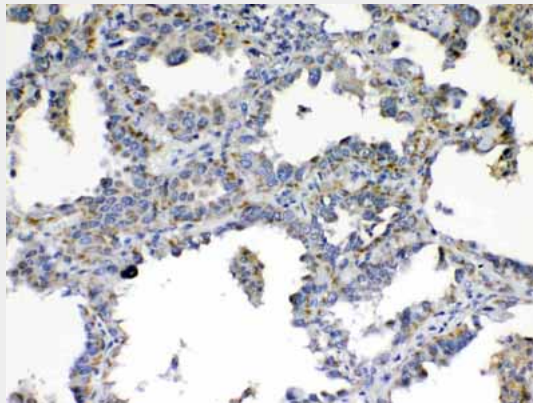


Figure 4. IHC analysis of TIMP4 using anti- TIMP4 antibody (ABO10331).TIMP4 was detected in paraffin-embedded section of human lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1½g/ml rabbit anti-TIMP4 Antibody (ABO10331) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

#### **Anti-TIMP4 Picoband Antibody - Background**

Metalloproteinase inhibitor 4 is an enzyme that in humans is encoded by the TIMP4 gene. And this gene is mapped to chromosome 3p25. This gene belongs to the TIMP gene family. The proteins encoded by this gene family are inhibitors of the matrix metalloproteinases, a group of peptidases involved in degradation of the extracellular matrix. The secreted, netrin domain-containing protein encoded by this gene is involved in regulation of platelet aggregation and recruitment and may play role in hormonal regulation and endometrial tissue remodeling.