

# Rabbit Anti-TIMP-1 antibody

# SL0415R

Product Name:	TIMP-1
Chinese Name:	金属蛋白酶组织抑制因子-1抗体
Alias:	Clgi; Collagenase inhibitor; EPA; EPO; Erythroid Potentiating Activity; Fibroblast collagenase inhibitor; FLJ90373; HC; Human Collagenase Inhibitor; Metalloproteinase inhibitor 1; Metalloproteinase inhibitor 1 precursor; OTTHUMP00000023214; TIMP 1; TIMP; TIMP metallopeptidase inhibitor 1; TIMP1 protein; Tissue Inhibitor of Metalloproteinase 1; Tissue inhibitor of metalloproteinases; Ttissue inhibitor of metalloproteinase 1 erythroid potentiating activity collagenase inhibitor.
	Specific References(8) SL0415R has been referenced in 8 publications.
	[IF=3.56]Sassoli, Chiara, et al. "Defining the role of mesenchymal stromal cells on the
	regulation of matrix metalloproteinases in skeletal muscle cells." Experimental Cell
	Research (2014). Mouse.
	PubMed:24631289
	[IF=3.53]Lu HY, Huang CY, Shih CM, Chang WH, Tsai CS, et al. (2015) Dipeptidyl
文献引用 Pub <mark>M</mark> ed	Peptidase-4 Inhibitor Decreases Abdominal Aortic Aneurysm Formation through GLP-
	1-Dependent Monocytic Activity in Mice. PLoS ONE 10(4): e0121077.IHC-P;Mouse.
:	PubMed:25876091
	[IF=2.53]Ni, Wei-Jian, et al. "Renoprotective effects of berberine through regulation of
	the MMPs/TIMPs system in streptozocin-induced diabetic nephropathy in
	rats."European Journal of Pharmacology (2015).WB;Rat.
	PubMed:26192633
	[IF=3.31] Watts, Ryan P., et al. "Novel 24-h ovine model of brain death to study the
	profile of the endothelin axis during cardiopulmonary injury." Intensive Care Medicine

	T 12.1 (2015) 21 777 7
	Experimental 3.1 (2015): 31.IHC-P;
	PubMed:26596583
	[IF=2.62] Sassoli, Chiara, et al. "Low intensity 635 nm diode laser irradiation inhibits
	fibroblast–myofibroblast transition reducing TRPC1 channel expression/activity: New
	perspectives for tissue fibrosis treatment." Lasers in Surgery and Medicine
	(2016).Mouse.
	PubMed:26660509
	[IF=2.14]Lu, Minling, et al. "The effects of mycotoxins and selenium deficiency on
	tissue-engineered cartilage." Cells Tissues Organs 196.3 (2012): 241-250.IHC-P;Rabbit.
	PubMed:22538829
	[IF=3.14] Varghese, Sheeja, et al. "The inhibitory effect of anti-tumor polysaccharide
	from Punica granatum on metastasis." International Journal of Biological
	Macromolecules (2017).WB;Human.
	PubMed:28552725
	[IF=1.26] Jiang, Li, Tongfu Zhou, and Hanming Liu. "Combined effects of the ATP-
	sensitive potassium channel opener pinacidil and simvastatin on pulmonary vascular
	remodeling in rats with monocrotaline-induced pulmonary arterial hypertension." Die
	Pharmazie-An International Journal of Pharmaceutical Sciences 67.6 (2012): 547-
	552.IHC-P;Rat.
	PubMed:22822545
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Pig, Cow, Rabbit, Sheep,
	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-
Applications:	500 (Paraffin sections need antigen repair)
Applications.	not yet tested in other applications.
	optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	21kDa
Cellular localization:	Secretory protein
Form:	Lyophilized or Liquid
Concentration:	lmg/ml
immunogen:	KLH conjugated synthetic peptide derived from human TIMP-1:103-207/207
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized
	antibody is stable at room temperature for at least one month and for greater than a year

when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

#### PubMed:

PubMed

This gene belongs to the TIMP gene family. The proteins encoded by this gene family are natural inhibitors of the matrix metalloproteinases (MMPs), a group of peptidases involved in degradation of the extracellular matrix. In addition to its inhibitory role against most of the known MMPs, the encoded protein is able to promote cell proliferation in a wide range of cell types, and may also have an anti-apoptotic function. Transcription of this gene is highly inducible in response to many cytokines and hormones. In addition, the expression from some but not all inactive X chromosomes suggests that this gene inactivation is polymorphic in human females. This gene is located within intron 6 of the synapsin I gene and is transcribed in the opposite direction. [provided by RefSeq].

#### **Function:**

Complexes with metalloproteinases (such as collagenases) and irreversibly inactivates them by binding to their catalytic zinc cofactor. Also mediates erythropoiesis in vitro; but, unlike IL-3, it is species-specific, stimulating the growth and differentiation of only human and murine erythroid progenitors. Known to act on MMP-1, MMP-2, MMP-3, MMP-7, MMP-8, MMP-9, MMP-10, MMP-11, MMP-12, MMP-13 and MMP-16. Does not act on MMP-14.

# **Subcellular Location:**

Secreted

#### **Product Detail:**

#### Post-translational modifications:

The activity of TIMP1 is dependent on the presence of disulfide bonds.

# Similarity:

Belongs to the protease inhibitor I35 (TIMP) family.

Contains 1 NTR domain.

## **SWISS:**

P01033

#### Gene ID:

7076

### Database links:

Entrez Gene: 7076Human

Entrez Gene: 21857Mouse

Omim: 305370Human

SwissProt: P01033Human

SwissProt: P12032Mouse

Unigene: 522632Human

Unigene: 8245Mouse

# **Important Note:**

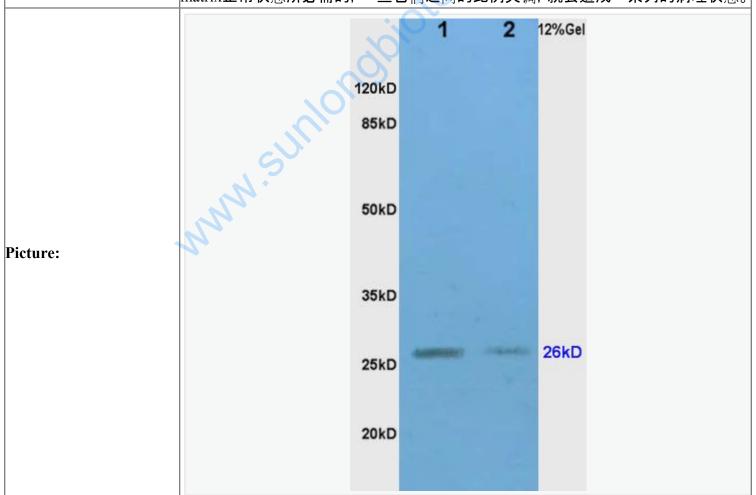
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Synthesis and Degradation (Synthesis and Degradation)

TIMP1是基质金属蛋白酶的抑制酶,其功能与MMP相反,能抑制Tumour细胞的浸润和转移,主要用于各种恶性Tumour如乳腺癌等的研究。TIMP-

1是一种28kDa的glycoprotein, 主要分泌细胞为多种结缔组织细胞, 被认为是组织中MMPs活性的主要调节者, 它可以和MMPs家族成员以共价键方式形成1:1的复合物, 从而发挥其抑制作用。在正常生理条件下, MMPs和TIMPs之间的平衡状态是维持Extracellular

matrix正常状态所必需的,一旦它们之间的比例失调,就会造成一系列的病理状态。



Sample:

Lane1: Brain(Mouse) Lysate at 30 ug

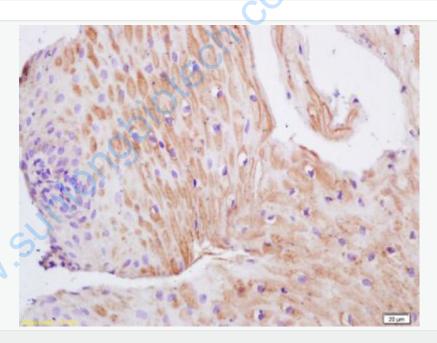
Lane2: Liver (Mouse) Lysate at 30 ug

Primary: Anti-TIMP-1 (SL0415R) at 1:200 dilution;

Secondary: HRP conjugated Goat Anti-Rabbit IgG(SL0415R) at 1: 3000 dilution;

Predicted band size: 21kD

Observed band size: 26kD

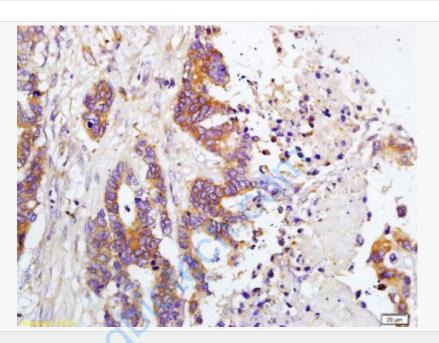


Tissue/cell: human gastric carcinoma; 4% Paraformaldehyde-fixed and paraffinembedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

Incubation: Anti-TIMP-1 Polyclonal Antibody, Unconjugated(SL0415R) 1:200,

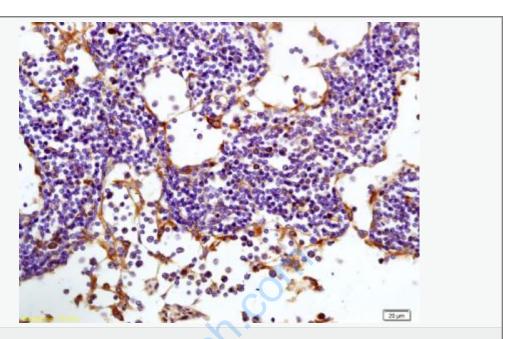
overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffinembedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

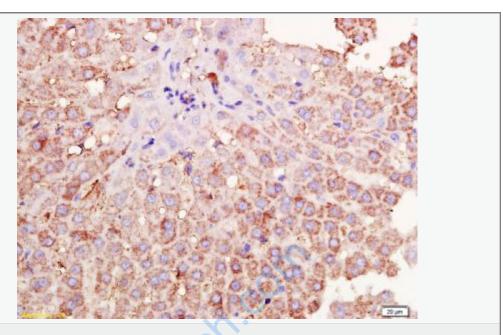
Incubation: Anti-TIMP-1 Polyclonal Antibody, Unconjugated(SL0415R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffinembedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

Incubation: Anti-TIMP-1 Polyclonal Antibody, Unconjugated(SL0415R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rabbit liver tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min;

Incubation: Anti-TIMP-1 Polyclonal Antibody, Unconjugated(SL0415R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining