

Tissue Inhibitors Of Metalloproteinase 4 Active Protein | TIMP4 active protein

Active Tissue Inhibitors Of Metalloproteinase 4 (TIMP4)

CATALOG #
AAA150077

APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Tissue Inhibitors Of Metalloproteinase 4; Active Tissue Inhibitors Of Metalloproteinase 4 (TIMP4); TIMP Metallopeptidase Inhibitor 4; Tissue Inhibitor of Metalloproteinases 4; TIMP4 active protein

PRODUCT SPECIFICATIONS

Purity/Purification	>90%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Cys32~Pro224
Sequence Length	224
Applicable Applications for TIMP4 active protein	Activity Assay, Cell Culture
Species	Human
Tag	N-terminal His Tag
Isoelectric Point	7.2
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

IMAGES



Bioactivity

Tissue Inhibitors Of Metalloproteinase 4 (TIMP4) is an enzyme that in humans is encoded by the TIMP4 gene. 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 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. Besides, Matrix Metalloproteinase 2 (MMP2) has been identified as an interactor of TIMP4, thus a binding ELISA assay was conducted to detect the interaction of recombinant human TIMP4 and recombinant human MMP2. Briefly, TIMP4 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100L were then transferred to MMP2-coated microtiter wells and incubated for 2h at 37. Wells were washed with PBST and incubated for 1h with anti-TIMP4 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of TIMP4 and MMP2 was shown in Figure 1, and this effect was in a dose dependent manner.



Gene Sequencing

Figure. Gene Sequencing (Extract



WB (Western Blot)

Figure. Western Blot



SDS-PAGE

Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for TIMP4 active protein	Tumor immunity; Cardiovascular biology
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4507515
NCBI GeneID	7079
NCBI Accession #	NP_003247.1
NCBI GenBank Nucleotide #	NP_003247.1
UniProt Accession #	Q99727
Molecular Weight	Predicted Molecular Mass: 23.5kDa Accurate Molecular Mass: 24kDa
NCBI Official Full Name	metalloproteinase inhibitor 4
NCBI Official Synonym Full Names	TIMP metallopeptidase inhibitor 4
NCBI Official Symbol	TIMP4
NCBI Official Synonym Symbols	TIMP-4
NCBI Protein Information	metalloproteinase inhibitor 4
UniProt Protein Name	Metalloproteinase inhibitor 4
UniProt Gene Name	TIMP4
UniProt Synonym Gene Names	TIMP-4

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/timp4-active-protein/tissue-inhibitors-of-metalloproteinase-4/150077>