

CPTC-TIMP1-2 (CAB080273)

Uniprot ID: [P01033](#)

Protein name: TIMP1_HUMAN

Full name: Metalloproteinase inhibitor 1

Tissue specificity: Detected in rheumatoid synovial fluid (at protein level).

Function: Metalloproteinase inhibitor that functions by forming one to one complexes with target metalloproteinases, such as collagenases, and irreversibly inactivates them by binding to their catalytic zinc cofactor. Acts on MMP1, MMP2, MMP3, MMP7, MMP8, MMP9, MMP10, MMP11, MMP12, MMP13 and MMP16. Does not act on MMP14. Also functions as a growth factor that regulates cell differentiation, migration and cell death and activates cellular signaling cascades via CD63 and ITGB1. Plays a role in integrin signaling. Mediates erythropoiesis in vitro; but, unlike IL3, it is species-specific, stimulating the growth and differentiation of only human and murine erythroid progenitors.

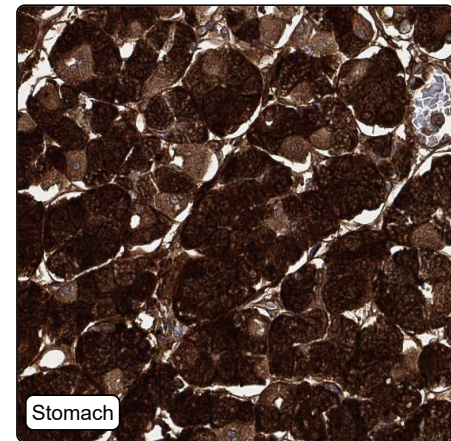
Subcellular location:

Secreted (*experimental evidence*)

Protein existence: Experimental evidence at protein level

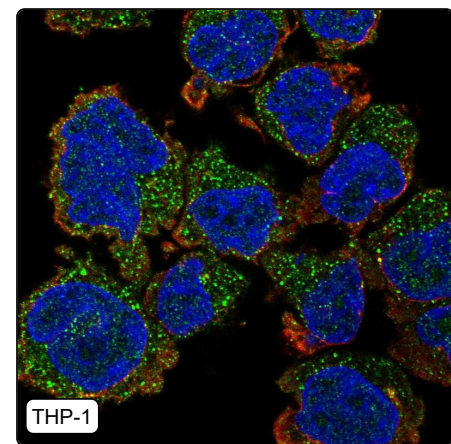
Comment:

Immunohistochemistry



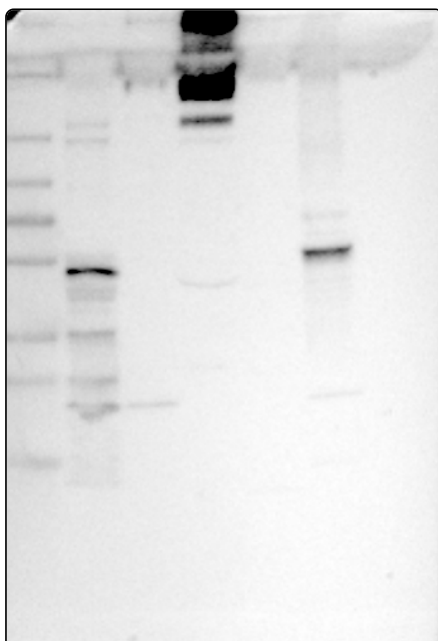
IHC protocol:	HIER pH6, Dilution 1:900
IHC test staining:	Cytoplasmic positivity in stomach and skeletal muscle.
Literature conformance:	Not consistent with gene/protein characterization data
Literature significance:	
RNA similarity:	Very low consistency between antibody staining and RNA expression data
RNA tissue specificity:	Tissue enhanced (urinary bladder)
RNA tissue distribution:	Detected in all
IHC Sibling similarity:	Other antibody shows dissimilar IHC staining pattern
IHC fail comment:	ANTIBODY FAILED: Not consistent with RNA

Immunofluorescence



IF Overlay:	antibody (green), anti-tubulin (red) and DAPI (blue)
IF main location:	Vesicles - 11 [8]: Approved (auto)
IF additional location:	
IF approved for publication on HPA:	Yes
IF in THP-1:	Vesicles
IF in U-2 OS:	Vesicles

Western blot



WB Size markers (kDa):	250, 130, 100, 70, 55, 35, 25, 15, 10
WB Lanes:	Marker (1), RT4 (2), U-251 MG (3), Plasma (4), Liver (5), Tonsil (6)
WB Target weight (kDa):	11, 15, 16, 18, 23
WB Validation:	Uncertain (Weak band of predicted size but with additional bands of higher intensity also present.)