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## Recombinant Human Tissue Inhibitor of Metalloproteinase 3 (TIMP-3)

Catalog No.	Size	Species	Protein Accession No.
RB-15-0001P	10 µg	Human	AAH14277

### Synonyms

Tissue inhibitor of metalloproteinase-3, TIMP3, TIMP metalloproteinase inhibitor 3.

### Description

TIMP-1, TIMP-2, TIMP-3 and TIMP-4 (for tissue inhibitor of metalloproteinases-1, -2, -3 and -4) complex with metalloproteinases such as collagenases, gelatinases and stromelysins, resulting in irreversible inactivation of the metallo-proteinase. TIMP-3 may be involved in regulating trophoblastic invasion of the uterus as well as in regulating remodeling of the extracellular matrix during the folding of epithelia, and in the formation, branching and expansion of epithelial tubes. TIMP-3 inhibits ADAM-17 (TACE) at nanomolar concentrations and also inhibits other metalloproteinases that mediate the shedding of soluble receptors and other proteins from the surface of cells.

### Preparation

The human *TIMP-3* gene without signal peptide coding sequence was cloned and expressed in *Escherichia coli*. The recombinant protein (Cys24-Pro211) has an N-terminal 6×histidine tag and was purified by immobilized metal ion affinity chromatography (IMAC).

### Source

Recombinant histidine-tagged protein, purified from *E. coli*.

### Predicted Molecular Mass

~23.4 kDa with the 6×histidine tag.

### Formulation

Liquid, clear solution. Supplied as a 0.2 µm filtered PBS solution (pH 7.4).

### Solubility

The product is soluble in the neutral buffer indicated above.

### Storage

The protein is stable at -20 to -70 °C in a manual defrost freezer. Avoid repeated freeze-thaw cycles.

### Applications

	Yes	No	Not Determined
ELISA	√		
Western blotting	√		
Dot blotting	√		
Protein array	√		
Others			√

**Note:** other applications are not tested yet. Optimal working concentrations should be determined by each laboratory for each application.

### References

1. Li Z, Clarke MP, Barker MD, McKie N (2007). TIMP3 mutation in Sorsby's fundus dystrophy: molecular insights. *Expert reviews in molecular medicine* 7 (24): 1–15.
2. Higuchi T, Kanzaki H, Nakayama H, *et al.* (1995). Induction of tissue inhibitor of metalloproteinase 3 gene expression during in vitro decidualization of human endometrial stromal cells. *Endocrinology* 136 (11): 4973–81.
3. Wick M, Bürger C, Brüsselbach S, *et al.* (1994). A novel member of human tissue inhibitor of metalloproteinases (TIMP) gene family is regulated during G1 progression, mitogenic stimulation, differentiation, and senescence. *J. Biol. Chem.* 269 (29): 18953–60.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**