

# Product information

## Metalloproteinase inhibitor 1, 24-217aa

Rat, His-tagged, Recombinant, Insect cell

Cat. No. IBATGP3178

NCBI Accession No.: NP\_446271

Synonyms: Timp1, Timp, TIMP-1

**Description:** TIMP1, also known as metalloproteinase inhibitor 1, a tissue inhibitor of metalloproteinases, is a glycoprotein that is expressed from the several tissues of organisms. The glycoprotein is a natural inhibitor 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. MMP1 functions as a growth factor that regulates cell differentiation, migration and cell death and activates cellular signaling cascades via CD63 and ITGB1. It plays a role in integrin signaling. Recombinant rat TIMP1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

**Form:** Liquid. In Phosphate Buffered Saline (pH 7.4) containing 10% glycerol.

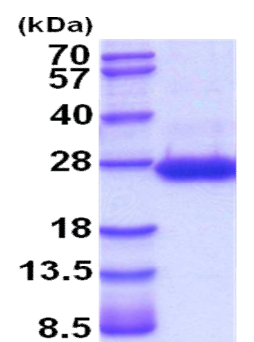
**Molecular Weight:** 22.3kDa (200aa)

18-28KDa (SDS-PAGE under reducing conditions.)

**Purity:** > 90% by SDS – PAGE.

**Concentration:** 0.5mg/ml (determined by Absorbance at 280nm)

**Endotoxin Level:** < 1.0 EU per 1µg of protein (determined by LAL method)



15% SDS-PAGE (3µg)

### Sequences of amino acids:

CSCAPTHPQT AFCNSDLVIR AKFMGSPEII ETTLYQRYEI KMTKMLKGF D AVGNATGFRF AYTPAMESLC GYVHKSQNR S EEFLIAGRLR  
NGNLHITACS FLVPWHNLSP AQKAFVKTY SAGCGVCTVF PCSAIPCKLE SDSHCLWTDQ ILMGSEKGYQ SDHFACLPRN PDLCTWQYLG  
VSMTRSLPLA KAEAHHHHHH

### General references:

Uchida C *et al.*, (2014) *Biochem. Cell Biol.* 92(1):77-83.

Zhang CY *et al.*, (2013) *Acta Pharmacol. Sin.* 34(10):1301-1309.

**Storage:** Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C.

Avoid repeated freezing and thawing cycles.

**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**