

Recombinant Rat Timp1 protein, His-tagged

Cat. No. Timp1-61R **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Recombinant rat TIMP1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Species

Rat

Source

Insect Cells

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.

Form

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

Molecular Mass

22.3kDa (200aa)18-28KDa (SDS-PAGE under reducing conditions.)

AA Sequence

CSCAPTHPQT AFCNSDLVIR AKFMGSPEII ETTLYQRYEI KMTKMLKGF
 AVGNATGFRF AYTPAMESLC GYVHKSQNRS EEFLIAGRRLR NGNLHITACS
 FLVPWHNLSP AQQKAFVKTY SAGCGVCTVF PCSAIPCKLE SDSHCLWTDQ
 ILMGSEKGYQ SDHFACLPRN PDLCTWQYLG VSMTRSLPLA KAEAHHHHHH

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Endotoxin	< 1.0 EU per 1 microgram of protein (determined by LAL method)
Purity	>90% by SDS – PAGE
Storage	Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.5mg/ml (determined by Absorbance at 280nm)

GENE INFORMATION

Gene Name	Timp1 TIMP metalloproteinase inhibitor 1 [<i>Rattus norvegicus</i>]
Official Symbol	Timp1
Synonyms	TIMP1; TIMP metalloproteinase inhibitor 1; metalloproteinase inhibitor 1; tissue inhibitor of metalloproteinase 1; tissue inhibitor of metalloproteinase 1; tissue inhibitor of metalloproteinases 1; Timp; TIMP-1;
Gene ID	116510
mRNA Refseq	NM_053819
Protein Refseq	NP_446271
MIM	
UniProt ID	
Pathway	Hemostasis, organism-specific biosystem; Matrix Metalloproteinases, organism-specific biosystem; Platelet activation, signaling and aggregation, organism-specific

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biosystem; Platelet degranulation, organism-specific biosystem; Response to elevated platelet cytosolic Ca²⁺, organism-specific biosystem;

Function

enzyme inhibitor activity; metal ion binding; metalloendopeptidase inhibitor activity; metalloendopeptidase inhibitor activity;

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