

**TECHNICAL DATA SHEET**

# Recombinant Human TIMP-2 (Carrier-free)

Catalog Number: 21-7086

**RPx-Pro™ Recombinant Protein**  
PRODUCT INFORMATION

**CONTENTS**

Recombinant Human TIMP-2 (Carrier-free)

**DESCRIPTION**

Tissue Inhibitors of Metalloproteinase-2 (TIMP-2) is one of four TIMP proteins that functions as an endogenous inhibitor for the matrix metalloproteinases (MMPs). An imbalance between MMPs and their respective TIMPs can lead to various disease states. TIMP-2 is widely expressed in many mammalian tissues. It participates in functions including wound healing, angiogenesis, inflammatory responses and tumor metastasis. TIMP-2 can also act through an MMP-independent mechanism to regulate cell proliferation and demonstrates anti-angiogenic activities in vivo.

**MOLECULAR MASS**

Recombinant human TIMP-2 is a 21.8 kDa protein containing 194 amino acid residues.

**AMINO ACID SEQUENCE**

CSCSPVHPQQ AFCNADVVIR AKAVSEKEVD SGNDIYGNI KRIQYEIKQI KMFKGPEKDI EFIYTAPSSA VCGVSLDVGG KKEYLIAGKA  
EGDGKMHITL CDFIVPWDTL STTQKKSLNH RYQMGCECKI TRCPMIPCYI SSPDECLWMD WVTEKNINGH QAKFFACIKR  
SDGSCAWYRG AAPPKQEFLD IEDP

**SOURCE**

E. coli

**APPLICATIONS**

Bioassay

**PURITY**

95 %

**STORAGE**

-20°C

**PROTEIN CONTENT**

Content Verified by UV Spectroscopy and/or SDS-PAGE

**ENDOTOXIN LEVEL**

Endotoxin level is <0.1 ng/μg of protein (<1 EU/μg).

**AUTHENTICITY**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**CROSS REACTIVITY**

**BIOACTIVITY**

TIMP-2 activity was measured by its ability to inhibit human MMP-1 induced hydrolysis of a chromogenic peptide substrate at room temperature. Half maximal inhibition was obtained at a TIMP-2 concentration of approximately 0.5 μg/ml, when using an MMP-1 concentration of 1.6 μg/ml.

**RESEARCH AREAS**

Proliferation; Stem Cells & Differentiation

**RECONSTITUTION**

See Certificate of Analysis (COA) for lot specific reconstitution information.

**REFERENCES**

Murphy G. 2011. Genome Biol. 12(11): 233. Maskos K and Bode W. 2003. Mol Biotechnol. 25(3): 241-266. Bode W, Fernandez-Catalan C, Grams F, Gomis-Ruth FX, Nagase H, Tschesche H and Maskos K. 1999. Ann NY Acad Sci. 878: 73-91. Stetler-Stevenson WG and Seo DW. 2005. Trends Mol Med. 11(3): 97-103. Baker AH, Edwards DR and Murphy G. 2002. J Cell Sci. 115: 3719-3727. Hayakawa T, Yamashita K, Ohuchi E and Shinagawa A. 1994. J Cell Sci. 107: 2373-2379.

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