TECHNICAL DATA SHEET

Equivalent Performance, Exceptional Value

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 SGNDIYGNPI KRIQYEIKQI KMFKGPEKDI EFIYTAPSSA VCGVSLDVGG KKEYLIAGKA EGDGKMHITL CDFIVPWDTL STTQKKSLNH RYQMGCECKI TRCPMIPCYI SSPDECLWMD WVTEKNINGH QAKFFACIKR SDGSCAWYRG AAPPKQEFLD IEDP

SOURCE	APPLICATIONS	PURITY	STORAGE
E. coli	Bioassay	95 %	-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.