

TECHNICAL DATA SHEET

Recombinant Human IGF Binding Protein-5 (Carrier-Free)

Catalog Number: 21-9001

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human IGF Binding Protein-5 (Carrier-Free)

DESCRIPTION

IGF-BPs control the distribution, function and activity of IGFs in various cell tissues and body fluids. Currently, there are seven named IGF-BPs that form high affinity complexes with both IGF-I and IGF-II. IGF-BP5 is a 28.6 kDa, cysteine-rich, secreted protein produced by vascular smooth muscle cells. It is the major IGF-binding protein present in bone tissue and helps potentiate the action of IGF-I on smooth muscle cells, fibroblasts, and osteoblasts. Data shows that IGF-BP-5 acts as a growth inhibitor and pro-apoptotic agent in breast cancer cells.

MOLECULAR MASS

Recombinant Human IGF-BP5 is a 28.6 kDa protein consisting of 253 amino acid residues.

AMINO ACID SEQUENCE

MLGSFVHCEP CDEKALSMCP PSPLGCELVK EPGCGCCMTC ALAEGQSCGV YTERCAQGLR CLPRQDEEK L HALLHGRGV CLNEKSYREQ
VKIERDSREH EPTTSEMAE ETYSPKIFRP KHTRISELKA EAVKKDRRKK LTQSKFVGGG ENTAHPRIIS APEMRQESQ GPCRRHMEAS LQELKASPRM
VPRAVYLPNC DRKGFYKRKQ CKPSRGRKRG ICWCVDKYGM KLPGMEYVDG DFQCHTFDSS NVS

SOURCE

E.coli

APPLICATIONS

Bioassay

PURITY

98 %

STORAGE

-20°C

PROTEIN CONTENT

Content Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

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

AUTHENTICITY

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

CROSS REACTIVITY

Human

BIOACTIVITY

The ED50 was determined by its ability to inhibit IGF-II induced proliferation of MCF-7 is ≤ 0.3 ug/ml in the presence of 15 ng/ml of human IGF-II.

RESEARCH AREAS

Proliferation, Cancer, Apoptosis, Diabetes/Weight Regulation

RECONSTITUTION

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

REFERENCES

Francischetti, I M. Cyr61/CCN1 displays high-affinity binding to the somatomedin B(1-44) domain of vitronectin. 2010.PLoS ONE; 5(2):e9356. Martino, M M. Heparin-binding domain of fibrin(ogen) binds growth factors and promotes tissue repair when incorporated within a synthetic matrix. 2013. Proceedings of the National Academy of Sciences of the USA; 110(12):4563-8

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