TECHNICAL DATA SHEET

Recombinant Human VEGF-B (Carrier-Free)

Catalog Number: 21-9020

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

CONTENTS

Recombinant Human VEGF-B (Carrier-Free)

DESCRIPTION

VEGF-B, a member of the VEGF family, is a potent growth and angiogenic cytokine. It promotes DNA synthesis in endothelial cells, helps regulate angiogenesis and vascular permeability, and inhibits apoptosis in certain smooth muscle cells and neurons. VEGF-B is expressed in all tissues except the liver. It forms cell surface-associated, disulfide-linked homodimers, and can form heterodimers with VEGF-A.

MOLECULAR MASS

Recombinant Human VEGF-B is a 38.0 kDa, disulfide-linked homodimeric protein consisting of two 167 amino acid polypeptide chains.

AMINO ACID SEQUENCE

PVSQPDAPGH QRKVVSWIDV YTRATCQPRE VVVPLTVELM GTVAKQLVPS CVTVQRCGGC CPDDGLECVP TGQHQVRMQI LMIRYPSSQL GEMSLEEHSQ CECRPKKKDS AVKPDSPRPL CPRCTQHHQR PDPRTCRCRC RRRSFLRCQG RGLELNPDTC RCRKLRR

SOURCE	APPLICATIONS	PURITY	STORAGE
E.coli	Bioassay	98 %	-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, Rat

BIOACTIVITY

Determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) in the presence of human VEGF165. The expected ED50 for this effect is 1.0-2.0 ug/ml.

RESEARCH AREAS

Inflammation, Angiogenesis/Cardiovascular, Proliferation, Cancer

RECONSTITUTION

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

REFERENCES

Favia, A. VEGF-induced neoangiogenesis is mediated by NAADP and two-pore channel-2-dependent Ca2+ signaling. 2014. Proceedings of the National Academy of Sciences of the USA; 111(44):E4706-15. Massena, S. Identification and characterization of VEGF-A-responsive neutrophils expressing CD49d, VEGFR1, and CXCR4 in mice and humans. 2015. Blood; 126(17):2016-26. Huang, D. VEGF-B inhibits hyperglycemia- and Macugen-induced retinal apoptosis. 2016. Scientific Reports; 6:26059.