

**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**

PVSPDAPGH QRKVVSWIDV YTRATCQPRE VVPLTVELM GTVAKQLVPS CVTVQRCGGC CPDDGLECVP TGQHQVRMQI LMIRYPSSQL  
GEMSLEEHSQ CECRPKKKDS AVKPDSPRPL CPRCTQHHQR PDPRTCRRC RRRSFLRCQG RGLELNPDC RCRKLRR

**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, 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 Ca<sup>2+</sup> 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.

Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

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