

TECHNICAL DATA SHEET

Recombinant Human PDGF-BB (Carrier-free)

Catalog Number: 21-8501

RPx-Pro™ Recombinant Protein
PRODUCT INFORMATION

CONTENTS

Recombinant Human PDGF-BB (Carrier-free)

DESCRIPTION

Platelet-derived growth factor-BB (PDGF-BB) is one of the five dimeric proteins belonging to the PDGF family. Other members are homodimers PDGF-AA, PDGF-CC, PDGF-DD, and the heterodimer PDGF-AB. The PDGFs are produced by platelets, stored in platelet alpha-granules and are released upon platelet activation. PDGF proteins are generally considered as potent mitogens for connective tissue cells, and can also be chemotactic for fibroblasts, smooth muscle cells, neutrophils and mononuclear cells. PDGF-BB plays a role in angiogenesis and smooth muscle formation during embryonic development, as well as wound healing and regeneration in adults. Two receptors have been identified for the PDGF proteins – PDGFR alpha and PDGFR beta. PDGF-BB binds to PDGFR alpha, as well as PDGFR beta which appears to be specific for PDGF-BB and PDGF-AB.

MOLECULAR MASS

Recombinant human PDGF-BB is a 24.3 kDa disulfide-linked homodimer of two B chains (218 total amino acids).

AMINO ACID SEQUENCE

SLGSLTIAEP AMIAECKTRT EVFEISRRLI DRTNANFLVW PPCVEVQRCS GCCNNRNVQC RPTQVQLRPV QVRKIEIVRK KPIFKKATVT LEDHLACKCE TVAAARPVT

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

98 %

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

Cow, Monkey, Mouse, Pig, Rat

BIOACTIVITY

Determined by the dose-dependent stimulation of the proliferation of Balb/c 3T3 cells. The expected ED₅₀ for this effect is 1.0 -3.0 ng/ml.

RESEARCH AREAS

Angiogenesis/Cardiovascular; Bone, Skeletal, Cartilage; Cancer; Immune System; Neurobiology; Wound Healing; Stem Cells & Differentiation

RECONSTITUTION

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

REFERENCES

Fredriksson L, Li H and Eriksson U. 2004. Cytokine Growth Factor Rev. 15(4): 197-204. Heldin CH and Westermark B. 1999. Physiol Rev. 79(4): 1283-1316. Kamimura M, Bea F, Akizawa T, Katus HA, Kreuzer J and Viedt C. 2004. Hypertension. 44(6): 944-951. Anand-Apte B and Zetter B. 1997. Stem Cells. 15(4): 259-267. Siegbahn A, Hammacher A, Westermark B and Heldin CH. 1990. J Clin Invest. 85(3): 916-920. Andrae J, Gallini R and Betsholtz C. 2008. Genes Dev. 22(10): 1276-1312.

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