

TECHNICAL DATA SHEET

Recombinant Mouse PDGF-AA (Carrier-free)

Catalog Number: 21-8989

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

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Recombinant Mouse PDGF-AA (Carrier-free)

DESCRIPTION

Platelet-derived growth factor-AA (PDGF-AA) is one of the five dimeric proteins belonging to the PDGF family. Other members are homodimers PDGF-BB, 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-AA is well known as a potent mitogen for the proliferation of oligodendrocyte progenitor cells (OPCs). Two receptors have been identified for the PDGF proteins - PDGFR alpha and PDGFR beta. PDGF-AA binds to PDGFR alpha, but not to PDGFR beta which appears to be specific for PDGF-BB and PDGF-AB.

MOLECULAR MASS

Recombinant Mouse PDGF-AA is a disulfide-linked homodimer of 28.7 kDa made up of two A chains, each consisting of 125 amino acids.

AMINO ACID SEQUENCE

SIEEAVPAVC KTRTVIYEIP RSQVDPTSAN FLIWPPCVEV KRCTGCCNTS SVKCQPSRVH HRSVKVAKVE YVRKKPKLKE
VQVRLEEHL CACATSNLNP DHREEETGRR RESGKNRKRK RLKPT

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

98 %

STORAGE

-20°C

PROTEIN CONTENT

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

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

Rat

BIOACTIVITY

The expected ED₅₀ is 8-10 ng/ml, as determined by the dose-dependent stimulation of Balb/c 3T3 cell proliferation.

RESEARCH AREAS

Angiogenesis & Cardiovascular, Bone and Cartilage, Cancer, Immune System, Neurobiology, Stem Cells & Differentiation, Wound Healing

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. Hu JG, Wang YX, Wang JG, Bao MS, Wang ZH, Ge X, Wang FC, Zhou JS and Lu HZ. 2012. J Mol Neurosci. 46(3): 644-653. 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.

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