Data Sheet (Cat.No.TMPS-00114)

TargetMol

PDGF-AA Protein, Mouse, Recombinant

General Information

Synonyms:	Platelet-Derived Growth Factor-AA;GDGF;Glioma-derived growth factor;Osteosarcoma-derived Growth Factor;ODGF;PDGFAA
Protein Construction:	Ser87-Thr211
Species:	Mouse
Expression Host:	E. coli
Accession:	P20033
Molecular Weight:	~28.7 kDa (Reducing conditions)

QC Testing

Biological Activity:	ED 50 < 50.0 ng/ml, measured in a cell proliferation assay using 3T3 cells.
Purity:	> 95% as determined by SDS-PAGE
Endotoxin:	< 0.2 EU/μg of protein as determined by the LAL method.
Formulation:	Lyophilized from a 0.2 μm filtered solution in PBS.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Platelet-Derived Growth Factor-AA (PDGF-AA) is one of five dimers (PDGF-AA, AB, BB, CC, and DD) formed by 4 different PDGF subunits. In chemical terms, platelet-derived growth factor is a dimeric glycoprotein composed of two A (-AA) or two B (-BB) chains or a combination of the two (-AB). The dimeric isoforms PDGF-AA, AB and BB are differentially expressed in various cell types, and their effects are mediated through two distinct receptors termed α and β. Differences exist in isoform binding to each receptor. Ingeneral, PDGF isoforms are potent mitogens for connective tissue cells including dermal fibroblasts, glial cells, arterial smooth muscle cells and some epithelial andendothelial cells. In addition to its activity as a mitogen, PDGF is chemotactic for fibroblasts, smooth muscle

cells, neutrophils and mononuclear cells. PDGF-AA plays a significant role in blood vessel formation (angiogenesis).

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