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PDGF-DD

Catalog # PVGS1419

Product Information

Primary Accession	Q9GZP0
Species	Human
Sequence	Ser250-Arg370
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Biological Activity	ED_{50}
Expression System	CHO
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O or PBS up to 100 g/ml.
Storage & Stability	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.

Additional Information

Gene ID	80310
Other Names	Platelet-derived growth factor D, PDGF-D, Iris-expressed growth factor, Spinal cord-derived growth factor B, SCDGF-B, Platelet-derived growth factor D, latent form, PDGFD latent form, Platelet-derived growth factor D, receptor-binding form, PDGFD receptor-binding form, PDGFD, IEGF, SCDGFB
Target Background	PDGF-DD, also known as platelet-derived growth factor D, IEGF and SCDGFB, is asecreted growth factor belonging to the PDGF/VEGFfamily. It is highly expressed in the heart, pancreas, adrenal glands and ovary. PDGF-DD forms functional homodimers that bind and induce PDGF Rβ homodimers and PDGF Rα/β heterodimers that promote intracellular signaling. This plays an important role in the regulation of cell differentiation, migration and survival. It has also been reported that PDGF-DD can induce monocyte and macrophage recruitment, increase interstitial pressure and facilitate wound healing.

Protein Information

Name	PDGFD
Synonyms	IEGF, SCDGFB
Function	Growth factor that plays an essential role in the regulation of embryonic development, cell proliferation, cell migration, survival and chemotaxis. Potent mitogen for cells of mesenchymal origin. Plays an important role in wound healing. Induces macrophage recruitment, increased interstitial pressure, and blood vessel maturation during angiogenesis. Can initiate events that lead to a mesangial proliferative glomerulonephritis, including influx of monocytes and macrophages and production of extracellular matrix (By similarity).
Cellular Location	Secreted. Note=Released by platelets upon wounding
Tissue Location	Expressed at high levels in the heart, pancreas, adrenal gland and ovary and at low levels in placenta, liver, kidney, prostate, testis, small intestine, spleen and colon. In the kidney, expressed by the visceral epithelial cells of the glomeruli. A widespread expression is also seen in the medial smooth muscle cells of arteries and arterioles, as well as in smooth muscle cells of vasa rectae in the medullary area. Expressed in the adventitial connective tissue surrounding the suprarenal artery. In chronic obstructive nephropathy, a persistent expression is seen in glomerular visceral epithelial cells and vascular smooth muscle cells, as well as de novo expression by periglomerular interstitial cells and by some neointimal cells of atherosclerotic vessels. Expression in normal prostate is seen preferentially in the mesenchyme of the gland while expression is increased and more profuse in prostate carcinoma. Expressed in many ovarian, lung, renal and brain cancer-derived cell lines