GFH16 Recombinant Human PDGF-AA

Description

Platelet-Derived Growth Factor (PDGF) is an important regulator of cell growth, proliferation, and angiogenesis. PDGF synthesis is induced by IL-1, IL-6, TNF-α, TGF-β and EGF signaling. PDGF functions as a mitogenic growth hormone on cells of mesenchymal lineage, such as smooth muscle and glial cells. PDGF is also stored in the α-granules of platelets and is released upon adherence to traumatized tissues. PDGF is a dimeric glycoprotein formed by two A chains (AA), two B chains (BB), or as a heterodimer with an A and a B chain (AB). The PDGF dimer binds the cell surface receptor tyrosine kinases PDGFR-a and PDGFR-b.

Length	126 / 252 aa
Molecular Weight	14.4 / 28.9 kDa
Source	E. coli
Accession Number	P04085
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

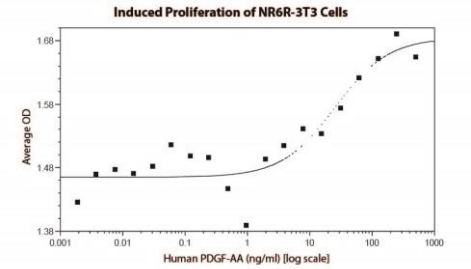
Specifications

Alternative Names	Platelet-Derived Growth Factor, GDGF, ODGF, PDGF AA
Biological Activity	Human PDGF-AA is fully biologically active when compared to standard. The activity is determined by the induction of NR6R-3T3 cells proliferation and it is typically less than 50 ng/ml. This corresponds to an expected specific activity of 2.0 x 10^4 units/mg.
Endotoxin Level	≤1.00 EU/µg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)
AA Sequence	MSIEEAVPAV CKTRTVIYEI PRSQVDPTSA NFLIWPPCVE VKRCTGCCNT SSVKCQPSRV HHRSVKVAKV EYVRKKPKLK EVQVRLEEHL ECACATTSLN PDYREEDTGR PRESGKKRKR KRLKPT

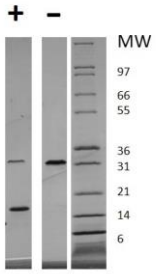
Preparation and Storage

Reconstitution	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions.
Stability and Storage	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

Data



Induced proliferation of NR6R-3T3 cells assay for Human PDGF-AA. Cell proliferation was measured to calculate the ED50, which is as expected less than 50 ng/ml.



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1 µg of protein was loaded in each lane. Human PDGF-AA has a predicted Mw of 28.9 kDa (disulfide linked homodimer).