

## GFH17AF Recombinant Human PDGF-AB (Animal-Free)

### 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- $\alpha$ , TGF- $\beta$  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  $\alpha$ -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.

This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

|                         |  |
|-------------------------|--|
| <b>Length</b>           | Alpha: 126, Beta: 110, Total: 236 aa                         |
| <b>Molecular Weight</b> | Alpha: 14.4, Beta: 12.4, Total: 26.8 kDa                     |
| <b>Source</b>           | E. coli  |
| <b>Accession Number</b> | P04085/P01127  |
| <b>Purity</b>           | $\geq 95\%$ determined by reducing and non-reducing SDS-PAGE |

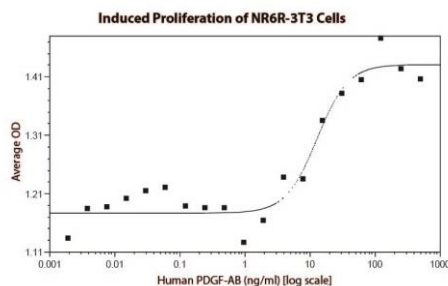
### Specifications

|                            |   |
|----------------------------|---|
| <b>Alternative Names</b>   | Platelet-Derived Growth Factor, GDGF, ODGF, PDGF AB   |
| <b>Biological Activity</b> | Human PDGF-AB (Animal-Free) is fully biologically active when compared to standard. The activity is determined by the ability to induce NR6R-3T3 cells proliferation and it is typically less than 20 ng/ml. This corresponds to an expected specific activity of $5 \times 10^4$ units/mg. |
| <b>Endotoxin Level</b>     | $\leq 1.00$ EU/ $\mu$ g as measured by kinetic LAL  |
| <b>Formulation</b>         | Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 0.1% Trifluoroacetic Acid (TFA)  |
| <b>AA Sequence</b>         | Alpha chain: MSIEEAVPAV CKTRTVIYEI PRSQVDPTSA NFLIWPPCVE VKRCTGCCNT<br>SSVKCQPSRV HRSVKVAKV EYVRKKPKLK EVQVRLEEHL ECACATTSLN PDYREEDTGR<br>PRESGKKRKR KRLKPT<br>Beta chain: MSLGLSLTIAE PAMIAECKTR TEVFEISRRL IDRTNANFLV WPPCVEVQRC<br>SGCCNNRNVQ CRPTQVQLRP VQVRKIEIVR KKP                 |

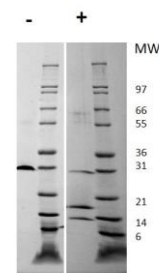
### Preparation and Storage

|                              |   |
|------------------------------|---|
| <b>Reconstitution</b>        | 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. |
| <b>Stability and Storage</b> | 12 months from date of receipt when stored at $-20^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ as supplied.<br>1 month when stored at $4^{\circ}\text{C}$ after reconstituting as directed.<br>3 months when stored at $-20^{\circ}\text{C}$ to $-80^{\circ}\text{C}$ after reconstituting as directed.                         |

### Data



Induced proliferation of NR6R-3T3 cells assay for Human PDGF-AB. Cell proliferation was measured to calculate the ED50, which is as expected less than 20 ng/ml.



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1  $\mu$ g of protein was loaded in each lane. Human PDGF-AB has a predicted Mw of 26.8 kDa ( $\alpha$  chain is 14.4 kDa and  $\beta$  chain is 12.4 kDa).