

BACKGROUND:

Platelet-Derived Growth Factor (PDGF) is a mitogenic peptide growth hormone carried in the alpha-granules of platelets and is released when platelets adhere to traumatized tissues. Connective tissue cells near the traumatized region respond by initiating the process of replication. The synthesis of PDGF can be induced by IL-1, IL-6, TNF- α , TGF- β and EGF.

Recombinant human PDGF-AB is a non-glycosylated, disulfide-linked heterodimer. It consists of one 13.3 kDa alpha-chain and one 12.2 kDa beta-chain, with total molecular mass of 25.5 kDa.

Cat. No.:
RP1017AF

Alternate Names:
GDGF, ODGF

AA Sequence:
Alpha chain:

MSIEEAVPAV	CKTRTVIYEI	PRSQVDPTSA
NFLIWPPCVE	VKRCTGCCNT	SSVKCQPSRV
HHRSVKVAKV	EYVRKKPKLK	EVQVRLEEHL
ECACATTSLN	PDYREEDTGR	PRESGKKRKR
KRLKPT		

Beta chain:

MSLGSLTIAE	PAMIAECKTR	TEVFEISRRL
IDRTNANFLV	WPPCVEVQRC	SGCCNNRNQV
CRPTQVQLRP	VQVRKIEIVR	KKPIFKKATV
TLEDHLACKC	ETVAAARPVT	

TECHNICAL INFO

Source:
E. coli

Physical Appearance:
Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:
0.1% Trifluoroacetic Acid (TFA)

Stability:
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term 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.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm.
- RP-HPLC calibrated against a known standard.
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:
The activity is measured by dose-dependent NR6R-3T3 cell proliferation, with Bioactivity Acceptance Criteria ED50 at 20 ng/mL.

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

