Bioactive

# PDGFA/PDGFB (Human) Recombinant Protein

Catalog # P6214 Size 100 ug

## Applications

### Result of activity analysis

Result of activity analysis

## Specification

| | |
|---|---|
| **Product Description** | Human PDGFA/PDGFB (P04085/P01127) recombinant protein expressed in *E.Coli*. |
| **Sequence** | Alpha chain: MSIEEAVPAVCKTRTVIYEIPRSQVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQP SRVHHRSVKVAKVEYVRKKPKLKEVQVRLEEHLECACATTSLNPDYREEDTGRPRESGKKRKR KRLKPT<br>Beta chain: MSLGSLTIAEPAMIAECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRN VQCRPTQVQLRPVQVRKIEIVRKKPIFKKATVTLEDHLACKCETVAAARPVT |
| **Host** | Escherichia coli |
| **Theoretical MW (kDa)** | Alpha:14.4, Beta: 12 |
| **Form** | Lyophilized |
| **Purity** | >= 95% |
| **Endotoxin Level** | <= 1 EUs/ug (Kinetic LAL) |
| **Activity** | $ED_{50}$ <= 20 ng/mL<br>NR6R-3T3 cell proliferation<br><br>The values provided above are minimum expected values to pass internal requirements. |
| **Quality Control Testing** | Reducing and Non-Reducing SDS PAGE |

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|---|---|
| **Conformation** | Dimer |
| **Storage Buffer** | Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 10 mM sodium phosphate . |
| **Storage Instruction** | Stored at -20°C to-80°C for 12 month.<br>After reconstitution with sterile water at 0.1 mg/mL, store at -20°C to -80°C for 3 months, store at 4°C for 1 month.<br>Aliquot to avoid repeated freezing and thawing. |
| **Note** | Result of activity analysis<br>Result of activity analysis |

## Applications

- Functional Study
- Western Blot

## Gene Info — PDGFA

| | |
|---|---|
| **Entrez GeneID** | 5154 |
| **Protein Accession#** | P04085;P01127 |
| **Gene Name** | PDGFA |
| **Gene Alias** | PDGF-A, PDGF1 |
| **Gene Description** | platelet-derived growth factor alpha polypeptide |
| **Omim ID** | 173430 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | The protein encoded by this gene is a member of the platelet-derived growth factor family. The four members of this family are mitogenic factors for cells of mesenchymal origin and are characterized by a motif of eight cysteines. This gene product can exist either as a homodimer or as a heterodimer with the platelet-derived growth factor beta polypeptide, where the dimers are connected by disulfide bonds. Studies using knockout mice have shown cellular defects in oligodendrocytes, alveolar smooth muscle cells, and Leydig cells in the testis; knockout mice die either as embryos or shortly after birth. Two splice variants have been identified for this gene. [provided by RefSeq |
| **Other Designations** | PDGF A-chain\|platelet-derived growth factor alpha\|platelet-derived growth factor alpha chain\|platelet-derived growth factor alpha isoform 2 preproprotein |

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## Gene Info — PDGFB

| | |
|---|---|
| **Entrez GeneID** | 5155 |
| **Protein Accession#** | P04085;P01127 |
| **Gene Name** | PDGFB |
| **Gene Alias** | FLJ12858, PDGF2, SIS, SSV, c-sis |
| **Gene Description** | platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog) |
| **Omim ID** | 190040 |
| **Gene Ontology** | Hyperlink |
| **Gene Summary** | The protein encoded by this gene is a member of the platelet-derived growth factor family. The four members of this family are mitogenic factors for cells of mesenchymal origin and are characterized by a motif of eight cysteines. This gene product can exist either as a homodimer (PDGF-BB) or as a heterodimer with the platelet-derived growth factor alpha polypeptide (PDGF-AB), where the dimers are connected by disulfide bonds. Mutations in this gene are associated with meningioma. Reciprocal translocations between chromosomes 22 and 7, at sites where this gene and that for COL1A1 are located, are associated with a particular type of skin tumor called dermatofibrosarcoma protuberans resulting from unregulated expression of growth factor. Two alternatively spliced transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq |
| **Other Designations** | PDGF, B chain\|Platelet-derived growth factor, beta polypeptide (oncogene SIS)\|becaplermin\|oncogene SIS\|platelet-derived growth factor 2\|platelet-derived growth factor beta\|platelet-derived growth factor, B chain\|v-sis platelet-derived growth factor beta p |

## Pathway

- Cytokine-cytokine receptor interaction
- Cytokine-cytokine receptor interaction
- Focal adhesion
- Focal adhesion
- Gap junction
- Gap junction
- Glioma
- Glioma

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- MAPK signaling pathway
- MAPK signaling pathway
- Melanoma
- Melanoma
- Pathways in cancer
- Pathways in cancer
- Prostate cancer
- Prostate cancer
- Regulation of actin cytoskeleton
- Regulation of actin cytoskeleton
- Renal cell carcinoma

## Disease

- Amyotrophic lateral sclerosis
- Anoxia
- Asthma
- Carcinoma
- Cardiovascular Diseases
- Chorioamnionitis
- Coronary Artery Disease
- Coronary Artery Disease
- Diabetes Mellitus
- Disease Progression
- Edema
- Fetal Membranes
- Genetic Predisposition to Disease

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- Genetic Predisposition to Disease
- Glomerulonephritis
- Head and Neck Neoplasms
- Neoplasms
- Obstetric Labor
- Ovarian Neoplasms
- Pre-Eclampsia
- Premature Birth
- Recurrence

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