Bioactive

PDGFA/PDGFB (Human) Recombinant Protein

Catalog # P4800 Size 10 ug

Applications

Result of activity analysis

Result of activity analysis

Serial dilutions of human PDGF-AB, starting at 100 ng/mL, were added to 3T3 cells. Cell proliferation was measured after 46 hours and the linear portion of the curve was us used to calculate the ED50.

Specification

Product Description	Human PDGFA/PDGFB (heterodimer) recombinant protein expressed in *Escherichia coli*.
Sequence	Alpha chain: MSIEEAVPAVCKTRTVIYEIPRSQVDPTSANFLIWPPCVEVKRCTGCCNTSSVKCQP SRVHHRSVKVAKVEYVRKKPKLKEVQVRLEEHLECACATTSLNPDYREEDTGRPRESGKKRKR KRLKPT Beta chain: MSLGSLTIAEPAMIAECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRN VQCRPTQVQLRPVQVRKIEIVRKKPIFKKATVTLEDHLACKCETVAAARPVT
Host	Escherichia coli
Theoretical MW (kDa)	13.3
Form	Lyophilized
Preparation Method	*Escherichia coli* expression system
Endotoxin Level	< 0.1 EU/ug
Activity	The activity is determined by the dose-dependent proliferation of mouse 3T3 indicator cells. The exp ected ED_{50} for this effect is 1.4-2.1 ng/mL.
Storage Buffer	Lyophilized from 10 mM acetic acid

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Storage Instruction	Store at -20°C on dry atmosphere. After reconstitution with sterilized water, store at -20°C. Aliquot to avoid repeated freezing and thawing.
Note	Result of activity analysis Result of activity analysis Serial dilutions of human PDGF-AB, starting at 100 ng/mL, were added to 3T3 cells. Cell proliferation was measured after 46 hours and the linear portion of the curve was us used to calculate the ED50.

Applications

- Functional Study
- SDS-PAGE

Gene Info — PDGFA

Entrez GeneID	5154
Protein Accession#	P04085 (Gene ID : 5154);P01127 (Gene ID : 5155)
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

Gene Info — PDGFB

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Entrez GeneID	5155
Protein Accession#	P04085 (Gene ID : 5154);P01127 (Gene ID : 5155)
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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