9051 Mira Mesa Blvd, #910094
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PDGF BB Mouse

Platelet-Derived Growth Factor BB Mouse Recombinant
GRF0309

Product Overview

Name	PDGF BB Mouse
Description	
Platelet-Derived Growth Factor BB Mouse Recombinant	
Accession (Primary)	P31240
Synonyms	
Glioma-derived growth factor, GDGF, Osteosarcoma-derived Growth Factor, ODGF, SIS, SSV, PDGF2, c-sis, FLJ12858, PDGF-BB, PDGF B-chain, Platelet-derived growth factor beta polypeptide, Becaplermin.	
Introduction	
PDGF-BB 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 splice variants have been identified for this gene.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
The protein was lyophilized from 10mM NaCitrate pH-3.0.	
Stability	
Lyophilized Platelet-derived Growth Factor BB although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution PDGF BB should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.	
Purity	
Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.	

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Amino acid sequence

MSLGSLAAAE PAVIAECKTR TEVFQISRNL IDRTNANFLV WPPCVEVQRC SGCCNNRNVQ CRASQVQMRP VQVRKIEIVR KKPIFKKATV TLEDHLACKC ETIVTPRPVT

Biological Activity

The biological activity is determined by the dose-dependant stimulation of the proliferation of human umbelical vein endothelial cells (HUVEC) using a concentration range of less than 1.6ng/ml.

Solubility

It is recommended to reconstitute the lyophilized Platelet-derived Growth Factor-BB in sterile 100mM acetic acid and 0.1% BSA not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Background

Platelet-Derived Growth Factor BB (PDGF-BB) is one of the isoforms of the PDGF family that plays a significant role in embryonic development, cell proliferation, cell migration, and angiogenesis. It's also relevant in the context of certain pathologies like cancer or healing processes. Here's what a research paper on Mouse Recombinant PDGF-BB might involve: Basic Biology: It might discuss the basic biology and function of PDGF-BB in the mouse model. This could include its role in various cellular processes like cell growth, division, and survival, as well as in the context of tissue repair or angiogenesis. Recombinant PDGF-BB Production: The paper might describe methods for producing recombinant PDGF-BB in laboratory conditions. It might go into detail on the expression system used (e.g., bacterial, yeast, or mammalian cells), the purification process, and how the functionality of the produced PDGF-BB was confirmed. Applications: It could also detail the experimental applications of recombinant PDGF-BB in the mouse model. For instance, it could be used to study wound healing processes, tissue regeneration, or the development and progression of certain diseases. Comparative Analysis: The research might include a comparison of the recombinant PDGF-BB with its natural counterpart in terms of functionality, structure, or other properties. Innovation: If the paper is presenting new research, it might discuss an innovative use of PDGF-BB, a novel production method, or new findings about its function.

References

1. Title: Analysis of fast protein phosphorylation kinetics in single cells on a microfluidic chip Publications: Lab on a Chip (2015) Link: PDGF BB Mouse prospec publication 2. Title: The Mouse Cornea as a Transplantation Site for Live Imaging of Engineered Tissue Constructs Publication: Cold Spring Harbor Protocols 2010.4 (2010): pdb-prot5416. Link: PDGF B-chain prospec publication

Protein content

Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.48 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of PDGF-BB as a Reference Standard.

Precautions

PDGF BB Mouse is for research use only and not for use in diagnostic or therapeutic procedures.

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Target Information: (P31240)

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References for protein:

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