

# Recombinant Human PDGFB therapeutic protein(Becaplermin)

**Cat. No.** PDGFB-P055H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Product Overview</b> | Recombinant Human Platelet-Derived Growth Factor Beta Polypeptide therapeutic protein is produced by recombinant DNA technology by insertion of the gene for the B chain of platelet derived growth factor (PDGF) into the yeast, <i>Saccharomyces cerevisiae</i> . It has a molecular weight of approximately 25 KD and is a homodimer composed of two identical polypeptide chains that are bound together by disulfide bonds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Source</b>           | Yeast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ProteinLength</b>    | 109 Aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Description</b>      | 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. The expression product is the active ingredient of |

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|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | Regranex.                                                                                                                                                                                                                                                        |
| <b>Molecular Mass</b> | 12.3kDa                                                                                                                                                                                                                                                          |
| <b>AA Sequence</b>    | SLGSLTIAEPAMIAECKTRTEVFEISRRLIDRTNANFLVWPPCVEVQRCSGCCNNRN<br>VQCRPTQVQLRPVQ VRKIEIVRKKPIFKKATVTLEDHLACKCETVAAARPVT                                                                                                                                               |
| <b>Endotoxin</b>      | < 1.0 EU per µg of the protein                                                                                                                                                                                                                                   |
| <b>Purity</b>         | >95%                                                                                                                                                                                                                                                             |
| <b>Storage</b>        | Can be stored at +4 centigrade short term (1-2weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.                                                                                  |
| <b>Alias</b>          | PDGFB; SSV; PDGF-2; SIS; PDGF2; c-sis; Becaplermin; PDGF-BB; PDGFB;<br>Platelet-derived growth factor BB, recombinant; Platelet-derived growth factor beta polypeptide; Recombinant platelet-derived growth factor BB; rhPDGF-BB; rPDGF-BB;<br>SH-POLYPEPTIDE-59 |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | PDGFB platelet-derived growth factor beta polypeptide [ Homo sapiens ]                                                                                                                                                                                                                                                                                                                                                   |
| <b>Official Symbol</b> | PDGFB                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Synonyms</b>        | PDGFB; platelet-derived growth factor beta polypeptide; platelet derived growth factor beta polypeptide (simian sarcoma viral (v sis) oncogene homolog) , SIS; platelet-derived growth factor subunit B; becaplermin; oncogene SIS; SSV; PDGF-2; PDGF, B chain; PDGF subunit B; proto-oncogene c-Sis; platelet-derived growth factor 2; platelet-derived growth factor B chain; platelet-derived growth factor, B chain; |

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|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | Platelet-derived growth factor, beta polypeptide (oncogene SIS); platelet-derived growth factor beta polypeptide (simian sarcoma viral (v-sis) oncogene homolog); SIS; PDGF2; c-sis; FLJ12858;                                                                                                                                                                                                                                                                                                                                                 |
| <b>Gene ID</b>             | <a href="#">5155</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>mRNA Refseq</b>         | <a href="#">NM_002608</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protein Refseq</b>      | <a href="#">NP_002599</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>MIM</b>                 | <a href="#">190040</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>UniProt ID</b>          | <a href="#">P01127</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Chromosome Location</b> | 22q13.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Pathway</b>             | Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Downstream signal transduction, organism-specific biosystem; Focal Adhesion, organism-specific biosystem; Focal adhesion, organism-specific biosystem; Focal adhesion, conserved biosystem; Gap junction, organism-specific biosystem;                                                                                                                                                                       |
| <b>Function</b>            | cell surface binding; collagen binding; eukaryotic cell surface binding; growth factor activity; platelet-derived growth factor binding; platelet-derived growth factor receptor binding; contributes_to platelet-derived growth factor receptor binding; platelet-derived growth factor receptor binding; platelet-derived growth factor receptor binding; protein binding; protein heterodimerization activity; protein homodimerization activity; protein tyrosine kinase activity; superoxide-generating NADPH oxidase activator activity; |