Platelet Derived Growth Factor-BB, rat recombinant (rrPDGF-BB)

Catalog No: 97649
Lot No: XXXXX
Source: *E. coli*
Synonyms: Platelet-derived growth factor subunit B, PDGF subunit B, PDGF-2, Platelet-derived growth factor B chain, Platelet-derived growth factor beta polypeptide, Pdgfb, SIS, c-sis

Background

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.

Description

PDGF-BB Rat Recombinant produced in *E. coli* is a disulfide-linked homodimeric, non-glycosylated, polypeptide of two B chains containing 2x109 amino acids (218 amino acids in total) and having a molecular mass of 24.4 kDa. PDGF-BB is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

PDGF-BB was lyophilized from a 0.2 µm filtered concentrated solution in 1 x PBS, pH 7.0.

Solubility

It is recommended to reconstitute the lyophilized PDGF-BB in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

SLGSLAAAEP AVIAECKTRT EVFQISRNLI DRTNANFLVW PPCVEVQRCS GCCNNRNVQC RASQVQMRPV QVRKIEIVRK KPVFKKATVT LEDHLACKCE TVVTPRPVT

Activity

The ED50as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 2.0 ng/ml, corresponding to a specific activity of > 5.0 x 10^5 IU/mg.

Usage

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