

PDGF-BB, Rat

Cat. No.: Z03179-1

Size: 1.0 mg

Synonyms: Platelet-Derived Growth Factor-BB, Glioma-derived growth factor (GDGF), Osteosarcoma-derived Growth Factor (ODGF)

Description:

Platelet-Derived Growth Factor-BB (PDGF-BB) is one of five dimers (PDGF-AA, AB, BB, CC, and DD) formed by 4 different PDGF subunits. *In vivo*, PDGF-BB is mainly produced in heart and placenta, and predominantly expressed by osteoblasts, fibroblasts, smooth muscle cells, and glial cells. An inactive precursor of PDGF-BB is produced in the endoplasmic reticulum and then activated by a proprotein convertase after secretion. PDGF-BB functions in a paracrine manner and promotes organogenesis, human skeletal development, and wound healing. PDGF-BB also promotes angiogenesis, particularly in the presence of Fibroblast Growth Factor basic. Therefore, PDGF-BB and its related pathways are potential pharmacological targets.

Recombinant rat Platelet-Derived Growth Factor-BB (rrPDGF-BB) produced in *E. coli* is a disulfide-linked homodimer containing two non-glycosylated polypeptide chains of 110 amino acids each. A fully biologically active molecule, rrPDGF-BB has a molecular mass of 24.6 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MSLGSLAAAE PAVIAECKTR TEVFQISRNL IDRTNANFLV
00041 WPPCVEVQRC SGCCNRRNVQ CRASQVQMRP VQVRKIEIVR
00081 KKPVFKKATV TLEDHLACKC ETVVTPRPVT
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Source: *E. coli*

Species: Rat

Biological Activity: ED₅₀ < 2 ng/mL, measured by a cell proliferation assay using 3T3 Cells, corresponding to a specific activity of > 5 × 10⁵ units/mg.

Molecular Weight: 24.6 kDa, observed by non-reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against 20 mM acetic acid.

Reconstitution: Reconstituted in 20 mM acetic acid at 100 µg/mL.

Purity: > 95% by SDS-PAGE analysis.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant rat Platelet-Derived Growth Factor-BB (rrPDGF-BB) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rrPDGF-BB remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.