

Overview

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. <i>In vivo</i> , 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 <i>E. coli</i> 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.
Accession No	Q05028
Species	Rat
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 2 ng/mL, measured by a cell proliferation assay using 3T3 Cells, corresponding to a specific activity of > 5 × 10 ⁵ units/mg.
Sequence	MSLGSLAAAE PAVIAECKTR TEVFQISRNL IDRTNANFLV WPPCVEVQRC SGCCNNRNVQ CRASQVQMRP VQVRKIEIVR KKPVFKKATV TLEDHLACKC ETVVTPRPVT

Properties

Measured Molecular Weight	24.6 kDa, observed by non-reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE analysis.
Formulation	Lyophilized after extensive dialysis against 20 mM acetic acid.
Reconstitution	Reconstituted in 20 mM acetic acid at 100 µg/mL.
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.
Note	For research use only

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