HUMANZYME

PRODUCT DATA SHEET

A XKine™ Product

Recombinant Human PDGFbb (Platelet-Derived Growth Factor bb)

Product Description

PDGFs are disulfide-linked dimers consisting of two 12.0-13.5 kDa polypeptide chains, designated PDGF-A and PDGF-B chains. The three naturally occurring PDGFs, PDGF-AA, PDGF-BB and PDGF-AB, are potent mitogens for a variety of cell types, including smooth muscle cells, connective tissue cells, bone and cartilage cells, and some blood cells. The PDGFs are stored in platelet α-granules, and are released upon platelet activation. The PDGFs are involved in a number of biological processes, including hyperplasia, chemotaxis, embryonic neuron development, and respiratory tubule epithelial cell development. Two distinct signaling receptors used by PDGFs have been identified and named PDGFR-α and PDGFR-β. PDGFR-α is a high-affinity receptor for each of the three PDGF forms. On the other hand, PDGFR-β interacts with only PDGF-BB and PDGF-AB. Recombinant Human PDGF-BB is a 24.3 kDa disulfide-linked homodimer of two β chains (218 total amino acids).

Typical Specifications

Species	Human
Expression	E. coli Cell Expressed
Activity	Typically 1.0-3.0 ng/mL ED_{50}
Purity	>98%
Endotoxin	<1.0 EU/μg
Molecular Mass	24.3 kDa
Formulation	10mM Acetic Acid
Country of Origin	USA

Purity Confirmation

This was determined by SDS-PAGE gel and HPLC analysis.

Activity Assay

Determined by the dose-dependent stimulation of the proliferation of Balb/c 3T3 cells

AA Sequence

SLGSLTIAEP	AMIAECKTRT	EVFEISRRLI
DRTNANFLVW	PPCVEVQRCS	GCCNNRNVQC
RPTQVQLRPV	QVRKIEIVRK	KPIFKKATVT
LEDHLACKCE	TVAAARPVT	

Reconstitution Buffer

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex.

Storage

For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% HSA) and store in working aliquots at -20°C to -80°C.

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