



Vascular Endothelial Growth Factor-B, human recombinant, His Tag (rHuVEGF-B-His)

Catalog No: 97230
Lot No: XXXXX
Source: *E. coli*
Synonyms: Vascular endothelial growth factor B, VEGF-B, VRF, VEGFL, VEGF-related factor, VEGFB

Background

VEGFB is a growth factor for endothelial cells. VEGFB 167 a.a. binds heparin and neuropilin-1 while the binding to neuropilin-1 of VEGFB 186 a.a. is regulated by proteolysis. Overexpression of VEGFB in mouse heart alters cardiac lipid metabolism and induces myocardial hypertrophy. Increased VEGFB expression is associated with hepatocellular carcinoma. VEGF-B has restricted angiogenic activity in the ischemic heart. VEGFB binds to VEGFR1, Flt1, but not to VEGFR2 and VEGFR3. VEGFB is homodimeric, heparin-binding glycoprotein involved in embryonic angiogenesis and vasculogenesis.

Description

VEGFB human recombinant produced in *E. coli* is a double, non-glycosylated, polypeptide chain containing 207 amino acids (22-207) and having a molecular mass of 21.6 kDa. VEGFB is fused to a 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered colorless liquid formulation.

Formulation

The VEGFB protein solution contains 20 mM Tris-HCl buffer pH 7.5 and 10% glycerol.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Purity

Greater than 90.0% as determined by SDS-PAGE.

Amino Acid Sequence

MGSSHHHHHH SSSLVPRGSH MPVSQPDAPG HQRKVVSWID VYTRATCQPR EVVVPLTVEL MGTVAKQLVP SCVTVQRCGG
CCPDDGLECV PTGQHQRVMQ ILMIRYPSSQ LGEMSLEEHS QCECRPKKKD SAVKPDRAAT PHHRPQPRSV PGWDSAPGAP
SPADITHPTP APGPSAHAAP STTSALTPGP AAAAAADAAAS SVAKGGA

Activity

Measured in a cell proliferation assay using NIH-3T3 mouse embryonic fibroblast. The ED50 for this effect is <1 ng/ml corresponding to a specific activity of less than 1,000,000 units/mg.

Usage

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