

Product datasheet

Recombinant VEGFA protein ab117230

Overview

Product name	Recombinant VEGFA protein
Protein length	Full length protein

Description

Nature	Recombinant
Source	Yeast

Amino Acid Sequence

Accession	Q9GKR0
Sequence	APMAEGEHKT HEVVKFMDVY QRSYCRPIET LVDIFQEYPD EIEYIFKPSC VPLMRCGGCC NDEGLECVPT AEFNITMQIM RIKPHQSQHI GEMSFLQHSK CECRPKKDKA RQENPCGPCS ERRKHLFVQD PQTCKCSCKN TDSRCKARQL ELNERTCRCD KPRR
Molecular weight	19 kDa
Amino acids	27 to 190

Specifications

Our [Abpromise guarantee](#) covers the use of **ab117230** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Lyophilised

Preparation and Storage

Stability and Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles. Constituents: 90% PBS, 10% Trehalose
Reconstitution	Reconstitute with sterile phosphate-buffered saline containing at least 0.1% carrier protein.

General Info

Function	Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin. NRP1/Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. Isoform VEGF165B binds to KDR but does not activate downstream signaling pathways, does not activate angiogenesis and inhibits tumor growth.
Tissue specificity	Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform VEGF206 and isoform VEGF145 are not widely expressed.
Involvement in disease	Defects in VEGFA are a cause of susceptibility to microvascular complications of diabetes type 1 (MVCD1) [MIM:603933]. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis.
Sequence similarities	Belongs to the PDGF/VEGF growth factor family.
Cellular localization	Secreted. VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding properties and, although a significant proportion remains cell-associated, most is freely secreted. VEGF189 is very basic, it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin.

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