

Product datasheet

Recombinant human VEGFA protein (Active) ab155722

[2 Images](#)

Description

Product name	Recombinant human VEGFA protein (Active)	
Biological activity	Measured by its binding ability in a functional ELISA. ab155722 at 2 µg/mL can bind Human VEGF R2, Strep Tag with a linear range of 0.15-2.5 µg/mL.	
Purity	> 95 % SDS-PAGE. ab155722 was lyophilized from 0.22 µm filtered solution.	
Endotoxin level	< 1.000 Eu/µg	
Expression system	HEK 293 cells	
Accession	P15692-12	
Protein length	Protein fragment	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	APMAEGGGQNHHEVVKFMDEVYQRSYCHPIETLVDIFQEYP DEIEYIFKPS CVPLMRCGGCCNDEGLECVPTTEESNITMQIMRIKPHQGQ HIGEMSFLQHN KCECRPKKDRARQEKCCKPRR	
Predicted molecular weight	14 kDa	
Amino acids	27 to 147	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab155722** in the following tested applications.

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

Applications	ELISA SDS-PAGE
Form	Lyophilized
Additional notes	This product is stable after storage at: -20°C to -70°C for 12 months in lyophilized state; -70°C for 3 months under sterile conditions after reconstitution.

Preparation and Storage

Stability and Storage

Shipped at 4°C. Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.40

Constituents: 95% PBS, 5% Trehalose

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

This product is an active protein and may elicit a biological response in vivo, handle with caution.

Reconstitution

Reconstitute with sterile deionized water to a concentration of 400 µg/ml.

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.

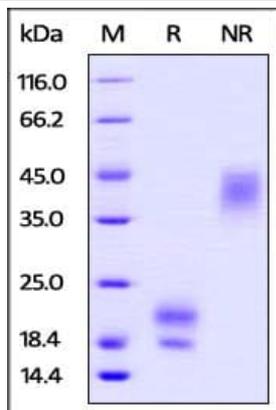
Sequence similarities

Belongs to the PDGF/VEGF growth factor family.

Cellular localization

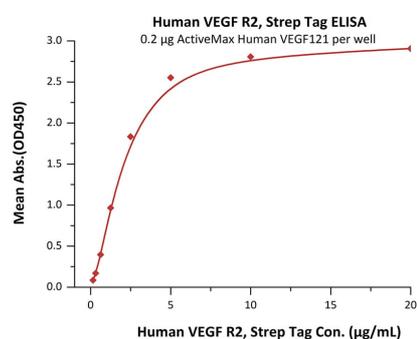
Secreted. VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding properties and, although a significant proportion remains cell-associated, most is freely secreted. VEGF189 is very basic, it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin.

Images



SDS-PAGE of ab155722 under reducing (R) and non-reducing (NR) conditions, stained overnight with Coomassie Blue. The protein migrates as 19 kDa and 20 kDa under reducing conditions, and 40-45 kDa (homodimer) under non-reducing conditions.

Functional Studies - Recombinant human VEGFA protein (ab155722)



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Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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