Datasheet for ABIN2181899

VEGF121 Protein (AA 27-147)

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Overview

Quantity:	50 µg
Target:	VEGF121
Protein Characteristics:	AA 27-147
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Brand:	ActiveMax®
Sequence:	AA 27-147
Characteristics:	This protein carries no "tag". The protein has a calculated MW of 14 kDa (monomer). As a result of glycosylation, the protein migrates as 19 kDa and 20 kDa under reducing (R) condition, and 40-45 kDa (homodimer) under non-reducing (NR) condition (SDS-PAGE).
Purity:	>95 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	VEGF121

Target Details

Alternative Name:	VEGF-121 (VEGF121 Products)
Background:	Vascular endothelial growth factor (VEGF) is also known as vascular permeability factor (VPF) and VEGF-A, and is a member of the platelet-derived growth factor (PDGF)/vascular endothelial growth factor (VEGF) family and encodes a protein that is often found as a disulfide linked homodimer. This protein is a glycosylated mitogen that specifically acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis and endothelial cell growth, promoting cell migration, and inhibiting apoptosis. Alternatively spliced transcript variants, encoding either freely secreted or cell-associated isoforms, have been characterized. Alternatively spliced isoforms of 121,145,165,183,189 and 206 amino acids in length are expressed in humans. VEGF165 appears to be the most abundant and potent isoform, followed by VEGF121 and VEGF189. VEGF121 is the only form that lacks a basic heparinbinding region and is freely diffusible. Mouse embryos expressing only the corresponding isoform (VEGF120) do not survive to term, and show defects in skeletogenesis. Human VEGF121 shares 87 % aa sequence identity with corresponding regions of mouse and rat, 93 % with feline, equine and bovine, and 91 %, 95 % and 96 % with ovine, canine and porcine VEGF, respectively. VEGF121 induces the proliferation of lymphatic endothelial cells. The lymphangiogenesis may be promoted by upregulation of VEGF121, which may in turn act in part via induction of VEGF-C.
Molecular Weight:	14.1 kDa
NCBI Accession:	NP_001165099

Application Details

Restrictions:	For Research Use only

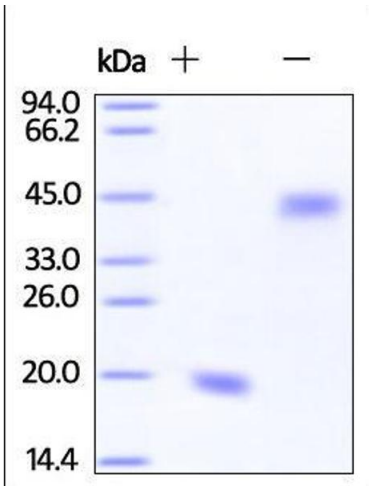
Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C-8 °C), After reconstitution under sterile conditions for 1 month (4 °C-8 °C) or 3 months (-20 °C to -70 °C).

Publications

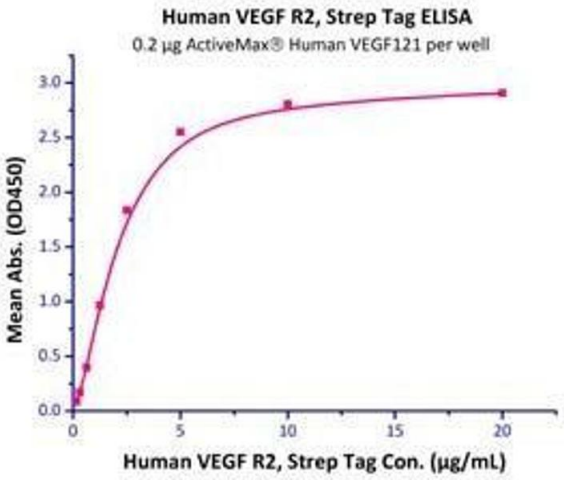
Product cited in: de Guzman, Rabbany: "PEG-Immobilized Keratin for Protein Drug Sequestration and pH-Mediated Delivery." in: **Journal of drug delivery**, Vol. 2016, pp. 7843951, (2016) (PubMed).

Images



SDS-PAGE

Image 1. Human VEGF121 on SDS-PAGE under reducing (R) and no-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



Binding Studies

Image 2. Immobilized Human VEGF121 with a linear range of 0.15-2.5 μg/mL.