# abcam

# Product datasheet

# Recombinant rat VEGFA protein ab92846

# 3 图像

#### 描述

产品名称
重组大鼠VEGFA蛋白

生物活性 Biological Activity: As determined by the dose-dependent induced proliferation of Human

umbilical vein endothelial cells (HUVECs) when compared to a standard. The expected  ${\rm ED}_{50}$  is

4.0-8.0 ng/ml.

纯**度** > 95 % SDS-PAGE.

Purity is approximately 97% as determined by RP-HPLC and reducing and non-reducing SDS-

PAGE.

表达系统 Escherichia coli

**蛋白长度** Protein fragment

无动物成分 No

性质 Recombinant

**种属** Rat

序列 MAPTTEGEQK AHEVVKFMDV YQRSYCRPIE

TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ

LELNERTCRC DKPRR

### 技术指标

Our <u>Abpromise guarantee</u> covers the use of ab92846 in the following tested applications.

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

应**用** SDS-PAGE

Functional Studies

形式 Lyophilized

补充说明 Endotoxin Level: Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.

制备和贮存

稳定性和存储 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.

Constituent: 0.165% Sodium phosphate

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

复溶

It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

#### 常规信息

功能 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.

组织特异性 Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform

VEGF206 and isoform VEGF145 are not widely expressed.

疾病相关 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.

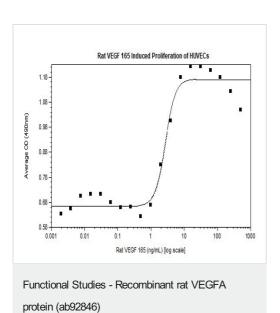
序列相似性 Belongs to the PDGF/VEGF growth factor family.

细胞定位 Secreted. VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding

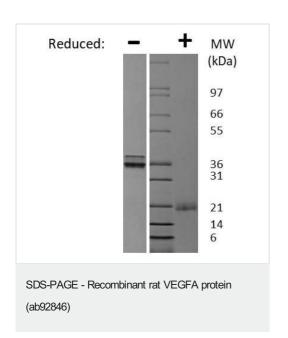
properties and, although a signicant proportion remains cell-associated, most is freely secreted. VEGF189 is very basic, it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or

plasmin.

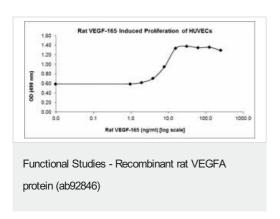
#### 图片



Functional analysis of ab92846



SDS PAGE analysis of ab92846 under non-reducing (-) and reducing (+) conditions. Stained with Coomassie Blue.



ab92846 used in Functional Studies.

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

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