# abcam

## Product datasheet

## Recombinant human VEGF189 protein ab106307

2 References 画像数 3

製品の詳細

製品名 Recombinant human VEGF189 protein

生理活性 Measured by the stimulation of cell proliferation in human umbilical vein endothelial cells in the

range of 2-20 ng/ml.

精製度 > 98 % SDS-PAGE.

Gel filtration, purification via Uno S6

**エンドトキシン・レベル** < 0.100 Ew/μg

**発現系** Escherichia coli

アクセッション番号 <u>P15692</u>

タンパク質長 Full length protein

Animal free No

**由来** Recombinant

生物種 Human

配列 APMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDE

**IEYIFKPS** 

CVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQGQHIG

**EMSFLQHN** 

KCECRPKKDRARQEKKSVRGKGKGQKRKRKKSRYKSWSVPCG

PCSERRKH

 ${\tt LFVQDPQTCKCSCKNTDSRCKARQLELNERTCRCDKPRR}$ 

予測される分子量42 kDa領域27 to 232

**配列の追加情報** Mature protein without signal peptide.

特性

Our Abpromise guarantee covers the use of ab106307 in the following tested applications.

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

アプリケーション Functional Studies

SDS-PAGE

製品の状態 Lyophilized

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#### 前処理および保存

#### 保存方法および安定性

Shipped at 4°C. The lyophilized protein is stable for a few weeks at room temperature. Store at -

20°C long term.

Constituent: 0.3% Acetic acid

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

#### 再構成

Should be reconstituted in PBS or medium containing at least 0.1% human or bovine serum

albumin to a concentration not lower than 50 µg/ml.

## 関連情報

#### 機能

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.

#### 組織特異性

Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform

VEGF206 and isoform VEGF145 are not widely expressed.

## 関連疾患

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.

## 配列類似性

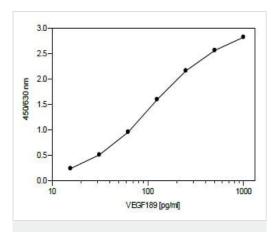
Belongs to the PDGF/VEGF growth factor family.

## 細胞内局在

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

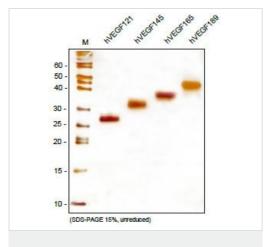
plasmin.

## 画像



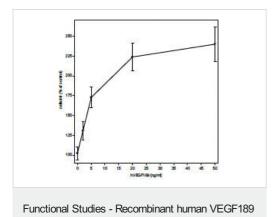
VEGF-A Sandwich-ELISA using VEGF189 as standard. Mouse anti-human VEGF-A was used as capture antibody, Biotinylated mouse anti-human VEGF-A was used for detection.

Functional Studies - Recombinant human VEGF189 protein (ab106307)



SDS-PAGE - Recombinant human VEGF189 protein (ab106307)

SDS-PAGE analysis of recombinant human VEGF-A isoforms produced in E. coli. Samples were loaded under non-reducing conditions in 15% SDS-polyacrylamide gel and stained with Silver stain.



VEGF189-induced proliferation of primary human dermal lymphatic endothelial cells (HDLEC). HDLECs were stimulated with increasing amounts of recombinant human VEGF189.

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

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protein (ab106307)

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