abcam

Product datasheet

Recombinant human VEGF 165A protein (Active) ab9571

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製品の詳細

製品名 Recombinant human VEGF 165A protein (Active)

生理活性 Determined by its ability to stimulate the proliferation of human umbilical vein endothelial cells

(HUVEC). The expected ED₅₀ for this effect is 1.0-10.0ng/ml.

精製度 > 98 % SDS-PAGE.

> 98% HPLC analyses. Sterile filtered

エンドトキシン・レベル < 1.000 Eu/μg 発現系 Escherichia coli

アクセッション番号 P15692-4

タンパク質長 Full length protein

Animal free No

由来 Recombinant

生物種 Human

配列 APMAEGGGQN HHEVVKFMDV YQRSYCHPIE

TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQENPCGPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ

LELNERTCRC DKPRR

予測される分子量38 kDa領域27 to 191

配列の追加情報 aa 27-232 is the full length mature protein minus the signal peptide.

特性

Our **Abpromise guarantee** covers the use of **ab9571** 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 HPLC

Cell Differentiation
Cellular Activation
Functional Studies

1

SDS-PAGE

製品の状態 Lyophilized

前処理および保存

保存方法および安定性 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -

80°C. Avoid freeze / thaw cycle.

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

再構成 Reconstitute in 100 µl dH2O

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 soform 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.

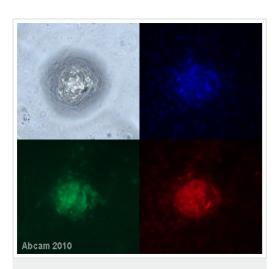
配列類似性 Belongs to the PDGF/VEGF growth factor family.

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



Cell differentiation - Recombinant human VEGF 165A protein (Active) (ab9571)

This image is courtesy of Sun Yung, Centro de Investigación Príncipe Felipe.

Human embryonic stem cells (H9) were differentiated both as embryoid bodies and monolayer cultures (on Matrigel) using a protocol described in Kennedy et al., 2006. BMP-4, FGF-basic (ab9596) and VEGF (ab9571) were sequentially added to the media to direct differentiation. These images were taken at day 8, where cell adhesion antigens CD31 (ab32457 in green) and CD34 (ab8536 in red) are abundant and represent primitive haematopoietic cells within the culture. DAPI staining is shown in blue.

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