abcam

Product datasheet

Recombinant human VEGF 121B protein ab88348

3 Images

Description

Product name Recombinant human VEGF 121B protein

Biological activity Activity: The ED₅₀ of VEGF 121B is typically 0.5-2.5 ng/ml as measured in a cell proliferation

assay using human umbilical vein endothelial (HUVEC) cells.

Purity > 95 % SDS-PAGE.

Expression system HEK 293 cells

Protein length Full length protein

Animal free No

Nature Recombinant

Species Human

Sequence APMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYP

DEIEYIFK

PSCVPLMRCGGCCNDEGLECVPTEESNITMQIMRIKPHQ GQHIGEMSF LQHNKCECRPKKDRARQEKCDKPRR

Specifications

Our **Abpromise guarantee** covers the use of **ab88348** in the following tested applications.

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

Applications Functional Studies

SDS-PAGE

Form Lyophilized

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at +4°C.

Constituents: 1% Human serum albumin, 10% Trehalose

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

Reconstitution It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial. Following

reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -

General Info

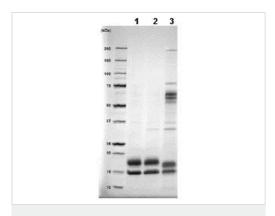
Relevance

VEGFA is a 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 VEGFR1/Flt-1 and VEGFR2/Kdr receptors, heparan sulfate and heparin. Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. In contrast to other factors mitogenic for endothelial cells such as FGF-1, FGF-2 and PDGF, VEGF is synthesized as a precursor containing a typical hydrophobic secretory signal sequence of 26 amino acids. Glycosylation is not required for efficient secretion of VEGF. VEGF 121 circulates more freely than other VEGF forms, which bind more tightly with vascular heparin sulfates.

Cellular localization

Secreted

Images



SDS-PAGE - Recombinant human VEGF 121B protein (ab88348)

1D SDS-PAGE of ab88348 before and after treatment with glycosidases to remove oligosaccharides.

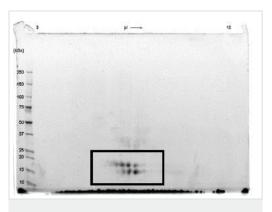
Lane 1: ab88348

Lane 2: ab88348 treated with PNGase F to remove potential N-linked glycans

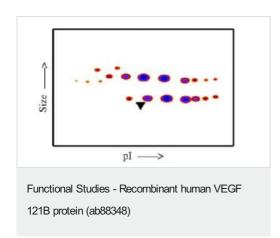
Lane 3: ab88348 treated with a glycosidase cocktail to remove potential N- and O-linked glycans.

The absence of a drop in MWt after treatment with PNGase F indicates that there are no N-linked glycans attached to the protein. A subsequent drop in MWt after treatment with the glycosidase cocktail indicates the presence of O-linked glycans. Additional bands in lane 2 and lane 3 are glycosidase enzymes.

A sample of ab88348 without carrier protein was reduced and alkylated and focused on a 3-10 IPG strip then run on a 4-20% Tris-HCI 2D gel. Approximately 40 μg of protein was load. Multiple spot trains indicate the presence of multiple isoforms of ab88348. Spots within both spot trains were cut from the gel and identified as ab88348 by protein mass fingerprinting.



SDS-PAGE - Recombinant human VEGF 121B protein (ab88348)



Densitometry of protein isoforms visualised by 2-DE.

The densitometry scan demonstrates the purified human cell expressed protein exists in multiple isoforms, which differ according to their level of post-translational modification.

The triangle indicates the theoretical MWt and pl of the protein.

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

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