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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

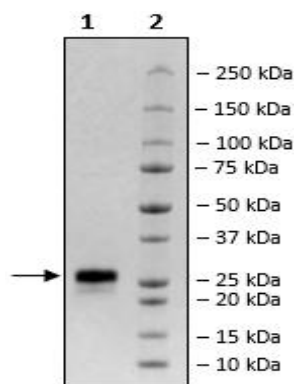
[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Product Information

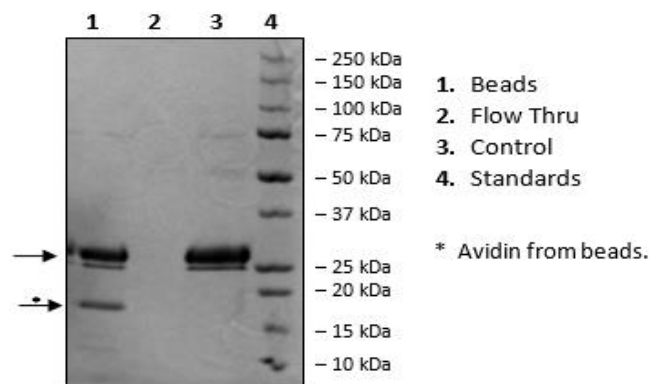
Description:	Recombinant human VEGF165 (Vascular Endothelial Growth Factor 165), encompassing amino acids 27-191(end). This construct contains a N-terminal His-tag (6xHis) followed by an Avi-tag™. This protein was affinity purified.
Background:	VEGF165 (Vascular Endothelial Growth Factor 165), a potent isoform of VEGF-A, belongs to the VEGF family of homodimer glycoproteins and is produced and secreted by various cells when angiogenesis is required. Angiogenesis involves endothelial cell proliferation, migration, and formation of blood vessels, which under normal conditions serve to provide nutrients and oxygen to tissues during development or wound healing. However, tumor cells can promote new blood vessel formation by secreting pro-angiogenesis factors. VEGF-A can bind to both VEGFR1 (Vascular Endothelial Growth Factor Receptor 1) and VEGFR2, also known as KDR (kinase insert domain receptor), on the surface of endothelial cells or cancer cells. VEGFR2 is considered the main signaling receptor, while VEGFR1 leads to a weak signaling and can be seen as a decoy receptor. Ligand binding induces VEGFR2 receptor dimerization and activates its tyrosine kinase activity. As a result, multiple downstream signaling cascades, including the MAPK (mitogen activated protein kinase) pathway, get activated. The VEGF-VEGFR signal pathway has been a significant target in therapeutic strategies aimed at controlling angiogenesis in diseases like cancer and AMD (age macular degeneration), and several small molecules, neutralizing antibodies and blockers have been FDA-approved. However, the development of drug resistance is still a challenge. The use of combinatory therapy or development of new generation drugs will continue to benefit cancer therapy.
Species:	Human
Construct:	VEGF165 (His-Avi-27-191(end))-(Biotin)
Concentration:	1.61 mg/ml
Expression System:	HEK293
Purity:	≥90%
Format:	Aqueous buffer solution.
Formulated In:	8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol
MW:	22 kDa + glycans
Glycosylation:	This protein runs at a higher MW by SDS-PAGE due to glycosylation.
Genbank Accession:	NM_001171626.2
Label:	This protein is enzymatically biotinylated using Avi-Tag™ technology. Biotinylation is confirmed to be ≥90%.
Stability:	At least 6 months at -80°C.
Storage:	-80°C
Instructions for Use:	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
Assay Conditions:	The protein was validated by measuring VEGFR1 binding to VEGF165 by ELISA. The VEGFR1 (#102109) was coated onto a 96-well plate overnight at 4°C (50 µl/well at a concentration of 2 µg/ml in PBS). The plate was washed 3 times with Immuno Buffer 1 (#79311) and blocked using 100 µl of Blocking Buffer 2 (#79728) for 1 hour at Room Temperature (RT). After removing the Blocking Buffer, 50 µl/well of purified VEGF165, Biotin-Labeled (#102245), serially diluted in Blocking Buffer 2, was added for 1 hour at RT. After 3 more washes, the plate was incubated with Streptavidin-HRP (#79742), washed, and incubated with the Colorimetric HRP substrate. The reaction was stopped, and absorbance was read at 450 nm. The Blank value was subtracted from all values.
Applications:	Useful for studying the binding of VEGF165 in ELISA and in cellular assays.

Quality Control Data

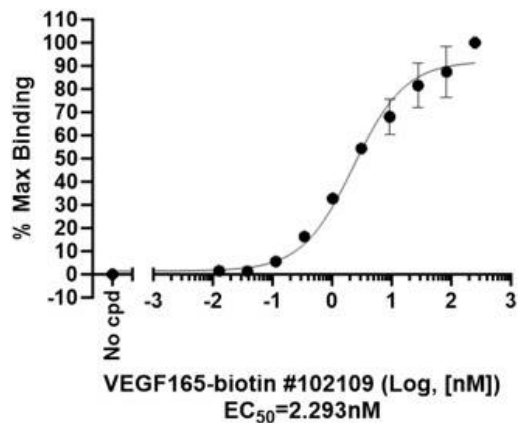
4-20% SDS-PAGE Coomassie Staining



Biotin-Avidin Pulldown



VEGFR1:VEGF165[Biotinylated] Binding Assay



VEGFR1:VEGF165[Biotinylated] Binding in the presence of VEGF Blocker

