

VEGFR1 (FLT1), Fc Fusion, Avi-Tag, Biotin-Labeled Recombinant

Catalog: 102110

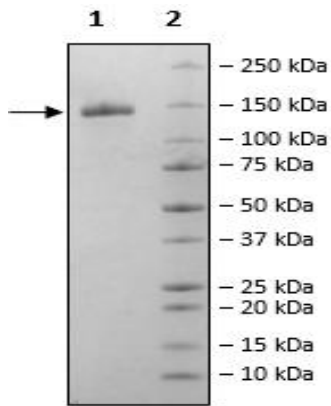
Lot: 240619

Product Information

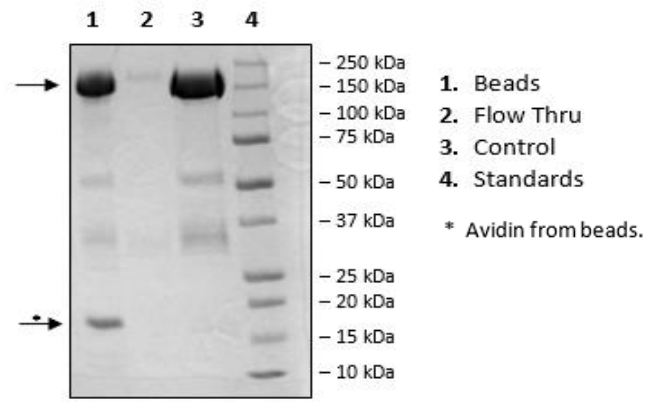
Description:	Recombinant human VEGFR1 (vascular endothelial growth factor receptor 1), also known as FLT1, encompassing amino acids 27-756 corresponding to the extracellular domain. This construct contains a C-terminal Fc domain of human IgG1 followed by an Avi-tag™. This protein was affinity purified.
Background:	VEGFR1 (vascular endothelial growth factor receptor 1), also known as FLT1, is a tyrosine kinase that serves as a receptor for VEGFA, VEGFB and PGF (placental growth factor). It is involved in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. It is a very high affinity receptor for VEGFA, and it may function as a negative regulator of VEGFA signaling by limiting the amount of free VEGFA and preventing its binding to VEGFR2, and intracellular signaling. It is thus considered a decoy receptor. VEGFR1 plays a role in macrophage migration through the activation of PLCγ (phospholipase C gamma) and PI3K (phosphoinositide 3-kinase) signaling pathways. Strategies to control the signaling pathways related to VEGF will advance the treatment of cardiovascular disorders and cancer.
Species:	Human
Construct:	VEGFR1 (27-756-Fc (IgG1)-Avi)-(Biotin)
Concentration:	0.47 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:	111 kDa + glycans
Glycosylation:	This protein runs at a higher MW by SDS-PAGE due to glycosylation.
Genbank Accession:	NM_002019.4
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-biotin binding to VEGF165 by ELISA. VEGF165 (#91001) 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 VEGFR1 (FLT1)-Biotin (#102110), 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 avidin pull down and binding assays between VEGF165 and VEGFR1.

Quality Control Data

4-20% SDS-PAGE Coomassie Staining



Biotin-Avidin Pulldown



VEGF165:VEGFR1-Fc-biotin Binding Assay

