Recombinant Human FLT1 Protein (aa 1-328, His Tag)

Catalog Number: PKSH031841

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

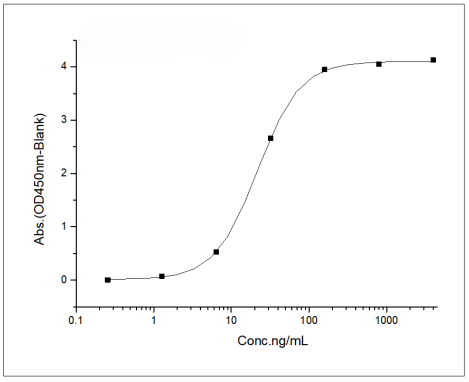
Description

Species	Human
Source	HEK293 Cells-derived Human FLT1 protein Met 1-Ile328, with an C-terminal His
Calculated MW	35.6 kDa
Accession	NP_002010.2
Bio-activity	Measured by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells (HUVEC). The ED_{50} for this effect is typically 10-40 ng/mL in the presence of 10 ng/mL human VEGF165.

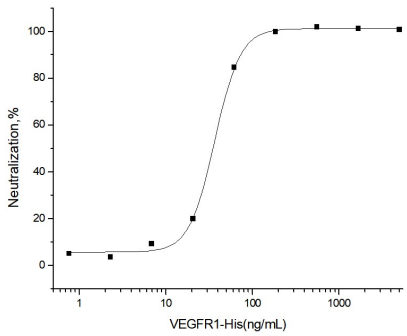
Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



Immobilized Recombinant Human VEGFR1 / FLT-1 Protein (His Tag) (Cat: PKSH031841) at 2 μg/mL (100 μL/well) can bind Recombinant Human / Cynomolgus VEGF / VEGFA / VEGF165 Protein (Cat: PKSH031978), the EC_{50} is 9.7-29.3 ng/mL.



Background

Vascular endothelial growth factor receptor 1, also known as VEGFR-1, Fms-like tyrosine kinase 1, Tyrosine-protein kinase FRT, Tyrosine-protein kinase receptor FLT, Vascular permeability factor receptor and FLT1, is a single-pass type I membrane protein and secreted protein which belongs to theprotein kinase superfamily, Tyr protein kinase family and CSF-1/PDGF receptor subfamily. VEGFR-1 / FLT1 contains sevenIg-like C2-type (immunoglobulin-like) domains and oneprotein kinase domain. VEGFR-1 / FLT1 is expressed mostly in normal lung, but also in placenta, liver, kidney, heart and brain tissues. It is specifically expressed in most of the vascular endothelial cells, and also expressed in peripheral blood monocytes. VEGFR-1 / FLT1 is not expressed in tumor cell lines. VEGFR-1 / FLT1 is an essential receptor tyrosine kinase that regulates mammalian vascular development and embryogenesis. EGF-induced angiogenesis requires inverse regulation of VEGFR-1 and VEGFR-2 in tumor-associated endothelial cells. VEGFR-1 / FLT1 is a receptor for VEGF, VEGFB and PGF. It has a tyrosine-protein kinase activity. The VEGF-kinase ligand/receptor signaling system plays a key role in vascular development and regulation of vascular permeability.

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