

FLT1 active protein

FLT1 Protein, Human, Recombinant (His Tag)

CATALOG #
AAA257831

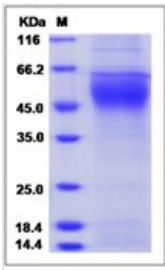
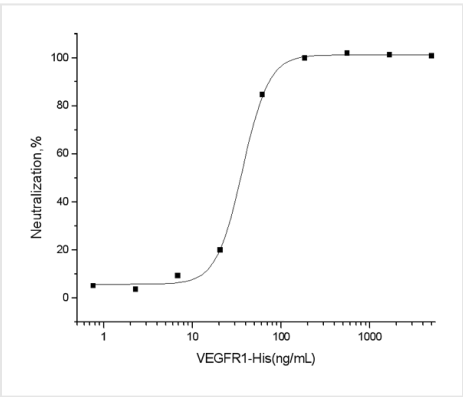
HOST
HEK293 Cells

PRODUCT SYNONYMS

FLT1; FLT1 Protein; Human; Recombinant (His Tag); Human VEGFR1/FLT-1 Protein (His Tag); FLT Protein; FLT-1 Protein; VEGFR-1 Protein; VEGFR1 Protein; fms-related tyrosine kinase 1; FLT1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>90% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Met1-Ile328
Species	Human
Activity	Measured by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells (HUVEC). The ED50 for this effect is typically 10-40ng/mL in the presence of 10ng/mL human VEGF165.
Endotoxin	<1.0EU per ug protein as determined by the LAL method.
Predicted N Terminal	Ser 27
Tag	C-His
Protein Construction	A DNA sequence encoding the human FLT1 (NP_002010.2)(Met1-Ile328) was expressed with a polyhistidine tag at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data

Measured by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells (HUVEC). (Conn, G. et al.,1990, Proc. Natl. Acad. Sci. USA 87:1323.) The ED50 for this effect is typically 10-40 ng/mL in the presence of 10 ng/mL human VEGF165.

ADDITIONAL INFORMATION

Related Product Information for FLT1 active protein

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 the protein kinase superfamily, Tyrosine protein kinase family and CSF-1/PDGF receptor subfamily. VEGFR-1/FLT1 contains seven Ig-like C2-type (immunoglobulin-like) domains and one protein 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.

Product Categories/Family for FLT1 active protein

Cancer Drug Targets Receptor Tyrosine Kinases (RTKs)

References

Shibuya M., et al.,(1990), Nucleotide sequence and expression of a novel human receptor-type tyrosine kinase gene (flt) closely related to the fms family. *Oncogene* 5:519-524.
Kendall R.L., et al., (1993), Inhibition of vascular endothelial cell growth factor activity by an endogenously encoded soluble receptor. *Proc. Natl. Acad. Sci. U.S.A.* 90:10705-10709.
Herley M.T., et al.,(1999), Characterization of the VEGF binding site on the Flt-1 receptor. *Biochem. Biophys. Res. Commun.* 262:731-738. Conn, G. et al. ,1990, *Proc. Natl. Acad. Sci. USA* 87:1323.

NCBI AND UNIPROT INFORMATION

NCBI GI #	156104876
NCBI GeneID	2321
NCBI Accession #	NP_002010.2
NCBI GenBank Nucleotide #	NM_002019.4
UniProt Accession #	P17948; O60722; A3E342; A3E344; A8KA71; B0LPP1; B2BF46; B2BF47; B2BF48; B3FR89; B5A923; F5H5L6
Molecular Weight	41,175 Da
NCBI Official Full Name	vascular endothelial growth factor receptor 1 isoform 1
NCBI Official Synonym Full Names	fms-related tyrosine kinase 1
NCBI Official Symbol	FLT1

NCBI Official Synonym Symbols	FLT; FLT-1; VEGFR1; VEGFR-1
NCBI Protein Information	vascular endothelial growth factor receptor 1; fms-like tyrosine kinase 1; tyrosine-protein kinase FRT; tyrosine-protein kinase receptor FLT; vascular permeability factor receptor; fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular
UniProt Protein Name	Vascular endothelial growth factor receptor 1
UniProt Gene Name	FLT1
UniProt Synonym Gene Names	FLT; FRT; VEGFR1; VEGFR-1; FLT-1; FLT
UniProt Entry Name	VGFR1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/hek293-cells-active-protein/flt1/257831>