

Recombinant Mouse Flt1 Protein, C-Myc/DDK-tagged

Product Information

Cat	IMP-6813
Official Symbol	FLT1
Product Overview	Purified recombinant protein of Mouse FMS-like tyrosine kinase 1 (cDNA clone MGC: 36074 IMAGE: 5368921), complete cds, with C-terminal Myc/DDK tag, expressed in HEK293T cells.
Description	<p>Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. May play an essential role as a negative regulator of embryonic angiogenesis by inhibiting excessive proliferation of endothelial cells. Can promote endothelial cell proliferation, survival and angiogenesis in adulthood. Its function in promoting cell proliferation seems to be cell-type specific. Promotes PGF-mediated proliferation of endothelial cells, and proliferation of some types of cancer cells, but does not promote proliferation of normal fibroblasts. Has very high affinity for VEGFA and relatively low protein kinase activity; may function as a negative regulator of VEGFA signaling by limiting the amount of free VEGFA and preventing its binding to KDR. Modulates KDR signaling by forming heterodimers with KDR. Ligand binding leads to the activation of several signaling cascades. Activation of PLCG leads to the production of the cellular signaling molecules diacylglycerol and inositol 1, 4, 5-trisphosphate and the activation of protein kinase C. Mediates phosphorylation of PIK3R1, the regulatory subunit of phosphatidylinositol 3-kinase, leading to the activation of phosphatidylinositol kinase and the downstream signaling pathway. Mediates activation of MAPK1/ERK2, MAPK3/ERK1 and the MAP kinase signaling pathway, as well as of the AKT1 signaling pathway. Phosphorylates SRC, YES1 and PLCG, and may also phosphorylate CBL. Promotes phosphorylation of AKT1 and PTK2/FAK1 (By similarity).[UniProtKB/Swiss-Prot Function]</p>
Expression System	HEK293T
Species	Mouse
Tag	C-Myc/DDK
Form	25mM Tris.HCl, pH 7.3, 100mM glycine, 10% glycerol
Molecular Mass	77.5 kDa
AA Sequence	MVSCWDTAVLPYALLGCLLLTGYGSGSKLKVPELSLKGQTQHVMQAGQTL FLKCRGEEAAHSWSLPTTVSQEDKRLSITPPSACGRDNRQFCSTLTLDTAQ ANHTGLYTCRYLPTSTSKKKKAESSIYFVSDAGSPFIEMHTDIPKLVHMTE

GRQLIIPCRVTSPNVTVTLKKFPFDLTPDGQRITWDSRRGFIIANATYKEI
GLLNCEATVNGHLYQTNYLTHRQNTILDVQIRPPSPVRLHGGQTLVLNCT
ATELNTRVQMSWNYPGKATKRASIRQRIDRCHSHNNVFHSLKINNVES
RDKGLYTCRVKSGSSFQSFNTSVHVYEKGFISVKHRKQPVQETTAGRRS
YRLSMKVKAFPSPEIVWLKDGSPATLKSARYLVHGYSLIHKDVTTEDAGDY
TILGKIQSRLFKNLATLIVNVKPKIYEKSVSSLPSPPLYPLGSRQVLTCTV
YGIPRPTITWLWHPCHHNHNSKERYDFCTENEESEFILDPSSNLGNRIESISQ
RMTVIEGTNKTVSTLVVADSQTPGIYSCRAFKNKIGTVERNIKFYVTDVPNG
FHVSLEKMPAEGEDLKLSCVVNKFLYRDITWILLRTVNNRTMHHSISKQK
MATTQDYSITLNLVIKNVSLSDSGTYACRARNIYTGEDILRKTEVLVRGEH
CGKKAIFSRISKFKSRRNDCTTQSHVKHTRTRPLEQKLISEEDLAANDILD
YKDDDDKV

Purity

> 80% as determined by SDS-PAGE and Coomassie blue staining.

Storage

Store at -80 centigrade after receiving vials. Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

Concentration

> 50 µg/mL as determined by microplate BCA method.