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Product datasheet for TL514364

Flt1 Mouse shRNA Plasmid (Locus ID 14254)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Flt1 Mouse shRNA Plasmid (Locus ID 14254)
Locus ID:	14254
Synonyms:	AI323757; Flt-1; sFlt1; VEGFR-1; VEGFR1
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Flt1 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 14254). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	BC029674, NM_010228, NM_010228.1, NM_010228.2, NM_010228.3, NM_001363135, NM_010228.4
UniProt ID:	P35969

View online »

Summary:

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]

shRNA Design:

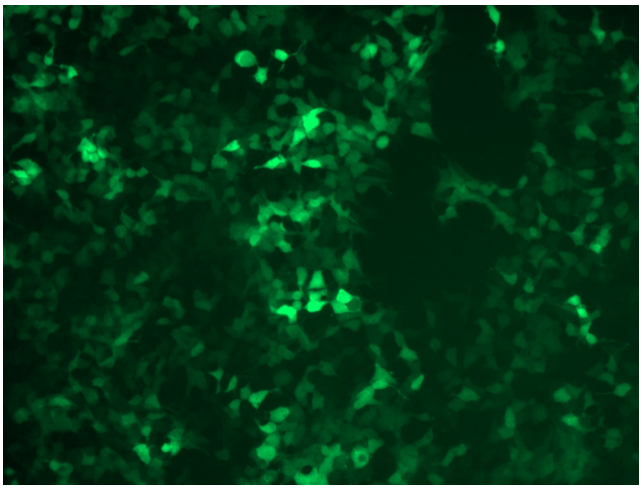
These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

Performance Guaranteed:

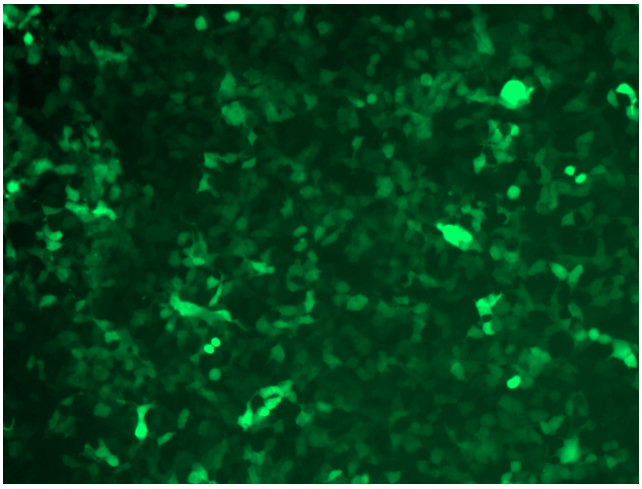
OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).

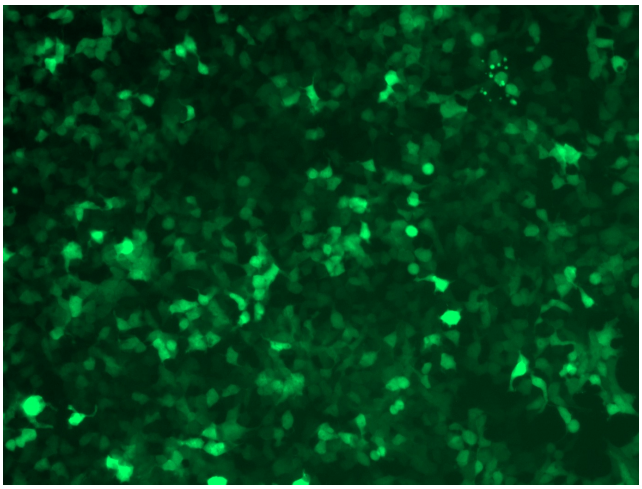
Product images:



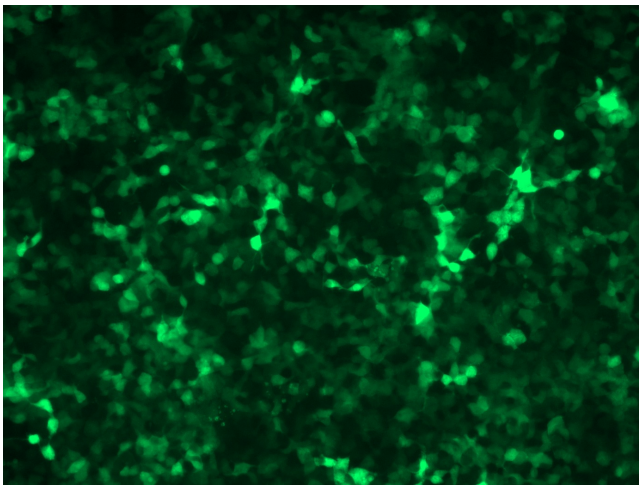
GFP signal was observed under microscope at 48 hours after transduction of TL514364A virus into HEK293 cells. TL514364A virus was prepared using lenti-shRNA TL514364A and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of TL514364B virus into HEK293 cells. TL514364B virus was prepared using lenti-shRNA TL514364B and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL514364C] virus into HEK293 cells. [TL514364C] virus was prepared using lenti-shRNA [TL514364C] and [TR30037] packaging kit.



GFP signal was observed under microscope at 48 hours after transduction of [TL514364D] virus into HEK293 cells. [TL514364D] virus was prepared using lenti-shRNA [TL514364D] and [TR30037] packaging kit.