

Flt-4 (M-20): sc-637

BACKGROUND

Three cell membrane receptor tyrosine kinases, Flt (also designated VEGF-R1), Flk-1 (also designated VEGF-R2) and Flt-4, putatively involved in the growth of endothelial cells, are characterized by the presence of seven immunoglobulin-like sequences in their extracellular domain. These receptors exhibit high degrees of sequence relatedness to each other as well as lesser degrees of relatedness to the class III receptors including CSF-1/Fms, PDGR, SLFR/Kit and Flt-3/Flk-2. Two members of this receptor class, Flt-1 and Flk-1, have been shown to represent high affinity receptors for vascular endothelial growth factors (VEGFs). On the basis of structural similarity to Flt and Flk-1, it has been speculated that Flt-4 might represent a third receptor for either VEGF or a VEGF-related ligand.

CHROMOSOMAL LOCATION

Genetic locus: FLT4 (human) mapping to 5q35.3; Flt4 (mouse) mapping to 11 B1.2.

SOURCE

Flt-4 (M-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within the C-terminus of Flt-4 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-637 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Flt-4 (M-20) is recommended for detection of Flt-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Flt-4 siRNA (h): sc-35397, Flt-4 siRNA (m): sc-35398, Flt-4 shRNA Plasmid (h): sc-35397-SH, Flt-4 shRNA Plasmid (m): sc-35398-SH, Flt-4 shRNA (h) Lentiviral Particles: sc-35397-V and Flt-4 shRNA (m) Lentiviral Particles: sc-35398-V.

Molecular Weight of Flt-4: 150 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or rat liver extract: sc-2395.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

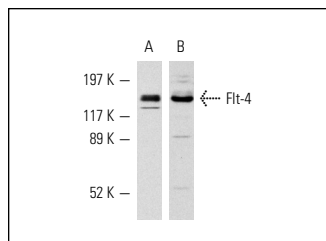
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

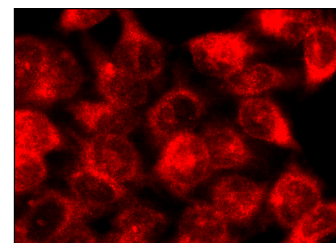
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



Western blot analysis of Flt-4 expression in K-562 whole cell lysate (A) and rat liver extract (B). Antibodies tested include Flt-4 (C-20): sc-321 (A) and Flt-4 (M-20): sc-637 (B).



Flt-4 (M-20): sc-637. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Hiltunen, M.O., et al. 2000. Intravascular adenovirus-mediated VEGF-C gene transfer reduces neointima formation in balloon-denuded rabbit aorta. *Circulation* 102: 2262-2268.
- Nakamura, E.S., et al. 2004. Inhibition of lymphangiogenesis-related properties of murine lymphatic endothelial cells and lymph node metastasis of lung cancer by the matrix metalloproteinase inhibitor MMI270. *Cancer Sci.* 95: 25-31.
- Shimoda, H., et al. 2004. Regrowth of lymphatic vessels following transection of the muscle coat in the rat small intestine. *Cell Tissue Res.* 316: 325-338.
- Cursiefen, C., et al. 2006. Nonvascular VEGF receptor 3 expression by corneal epithelium maintains avascularity and vision. *Proc. Natl. Acad. Sci. USA* 103: 11405-11410.
- Gaudio, E., et al. 2006. Vascular endothelial growth factor stimulates rat cholangiocyte proliferation via an autocrine mechanism. *Gastroenterology* 130: 1270-1282.
- Gaudio, E., et al. 2006. Administration of r-VEGF-A prevents hepatic artery ligation-induced bile duct damage in bile duct ligated rats. *Am. J. Physiol. Gastrointest. Liver Physiol.* 291: G307-G317.
- Spinella, F., et al. 2009. Endothelin-1 stimulates lymphatic endothelial cells and lymphatic vessels to grow and invade. *Cancer Res.* 2009: 2669-2676.
- Das, J.K., et al. 2015. ID3 contributes to the acquisition of molecular stem cell-like signature in microvascular endothelial cells: its implication for understanding microvascular diseases. *Microvasc. Res.* 98: 126-138.



Try **Flt-4 (E-3): sc-514825** or **Flt-4 (D-6): sc-28297**, our highly recommended monoclonal alternatives to Flt-4 (M-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Flt-4 (E-3): sc-514825**.