

Flt-4 (H-240): sc-20734

BACKGROUND

Three cell membrane receptor tyrosine kinases, Flt (also designated VEGF-R1), Flk-1 (also designated VEGF-R2) and Flt-4 (also designated VEGF-R3), 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.

REFERENCES

1. 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.
2. Matthews, W., et al. 1991. A receptor tyrosine kinase cDNA isolated from a population of enriched primitive hematopoietic cells and exhibiting close genetic linkage to c-kit. *Proc. Natl. Acad. Sci. USA* 88: 9026-9030.
3. De Vries, C., et al. 1992. The fms-like tyrosine kinase, a receptor for vascular endothelial growth factor. *Science* 255: 989-991.
4. Peters, K.G., et al. 1993. Vascular endothelial growth factor receptor expression during embryogenesis and tissue repair suggests a role in endothelial differentiation and blood vessel growth. *Proc. Natl. Acad. Sci. USA* 90: 8915-8919.
5. Millauer, B., et al. 1993. High affinity VEGF binding and developmental expression suggest Flk-1 as a major regulator of vasculogenesis and angiogenesis. *Cell* 72: 835-846.

CHROMOSOMAL LOCATION

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

SOURCE

Flt-4 (H-240) is a rabbit polyclonal antibody raised against amino acids 8-240 mapping near the N-terminus of Flt-4 of human origin.

PRODUCT

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

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.

APPLICATIONS

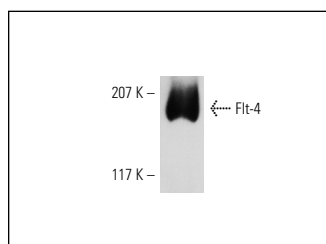
Flt-4 (H-240) is recommended for detection of Flt-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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.

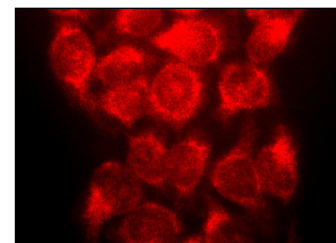
Molecular Weight of Flt-4: 150 kDa.

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

DATA



Flt-4 (H-240): sc-20734. Western blot analysis of human recombinant Flt-4.



Flt-4 (H-240): sc-20734. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Fanganiello, R.D., et al. 2007. Apert p.Ser252Trp mutation in FGFR-2 alters osteogenic potential and gene expression of cranial periosteal cells. *Mol. Med.* 13: 422-442.
2. Wang, L., et al. 2008. Effects of angiotensin-converting enzyme inhibitors and angiotensin II type 1 receptor blockers on lymphangiogenesis of gastric cancer in a nude mouse model. *Chin. Med. J.* 121: 2167-2171.
3. Scala, G. and Maruccio, L. 2012. Angiogenesis of buffalo choroid plexuses: structural and immunocytochemical study. *Microsc. Res. Tech.* 75: 1104-1112.

RESEARCH USE

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



Try **Flt-4 (E-3): sc-514825** or **Flt-4 (D-6): sc-28297**, our highly recommended monoclonal alternatives to Flt-4 (H-240). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Flt-4 (E-3): sc-514825**.