

Flt-1 (N-16): sc-31173

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: FLT1 (human) mapping to 13q12.2; Flt1 (mouse) mapping to 5 G3.

SOURCE

Flt-1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Flt-1 precursor 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.

Blocking peptide available for competition studies, sc-31173 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Flt-1 (N-16) is recommended for detection of Flt-1 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).

Flt-1 (N-16) is also recommended for detection of Flt-1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Flt-1 siRNA (h): sc-29319, Flt-1 siRNA (m): sc-35395, Flt-1 shRNA Plasmid (h): sc-29319-SH, Flt-1 shRNA Plasmid (m): sc-35395-SH, Flt-1 shRNA (h) Lentiviral Particles: sc-29319-V and Flt-1 shRNA (m) Lentiviral Particles: sc-35395-V.

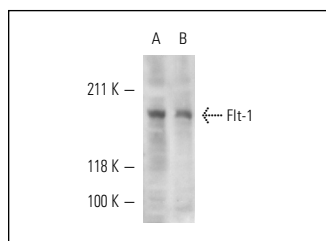
Molecular Weight of Flt-1: 180 kDa.

Positive Controls: A-10 cell lysate: sc-3806, mouse embryo extract: sc-364239 or MDA-MB-231 cell lysate: sc-2232.

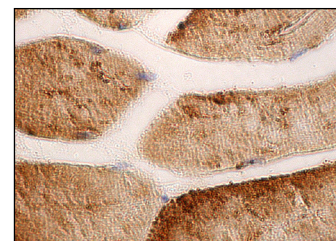
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Flt-1 (N-16): sc-31173. Western blot analysis of Flt-1 expression in MDA-MB-231 whole cell lysate (A) and mouse embryo tissue extract (B).



Flt-1 (N-16): sc-31173. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

- Zhu, C.S., et al. 2008. Adenoviral delivery of soluble VEGF receptor 1 (sFlt-1) inhibits experimental autoimmune encephalomyelitis in dark Agouti (DA) rats. *Life Sci.* 83: 404-412.
- Neves, D., et al. 2008. Does regular consumption of green tea influence expression of vascular endothelial growth factor and its receptor in aged rat erectile tissue? Possible implications for vasculogenic erectile dysfunction progression. *Age* 30: 217-228.
- Zhu, C., et al. 2011. Soluble vascular endothelial growth factor (VEGF) receptor-1 inhibits migration of human monocytic THP-1 cells in response to VEGF. *Inflamm. Res.* 60: 769-774.

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **Flt-1 (D-2): sc-271789**, our highly recommended monoclonal alternatives to Flt-1 (N-16). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Flt-1 (D-2): sc-271789**.