

Flt-1 (C-17): sc-316

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 (C-17) is available as either rabbit (sc-316) or goat (sc-316-G) polyclonal antibody raised against a peptide mapping at the C-terminus of Flt-1 of human origin.

PRODUCT

Each vial contains either 100 µg (sc-316) or 200 µg (sc-316-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-316 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Flt-1 (C-17) 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), immunohistochemistry (including paraffin-embedded sections) (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 (C-17) is also recommended for detection of Flt-1 in additional species, including equine, canine, bovine 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, MDA-MB-231 cell lysate: sc-2232 or mouse embryo extract: sc-364239.

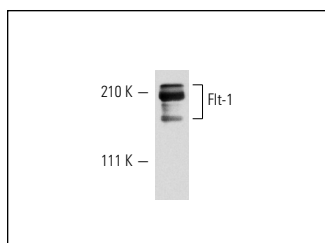
STORAGE

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

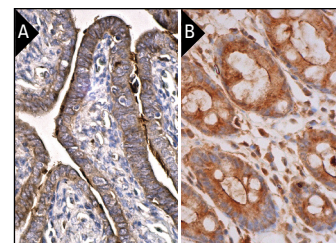
RESEARCH USE

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

DATA



Flt-1 (C-17)-G: sc-316. Western blot analysis of Flt-1 expression in A-10 whole cell lysate.



Flt-1 (C-17): sc-316. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing membrane and cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic and membrane staining of glandular cells and cytoplasmic staining of interstitial cells (B).

SELECT PRODUCT CITATIONS

- Omura, T., et al. 1997. Identification of a 190 kDa vascular endothelial growth factor 165 cell surface binding protein on a human glioma cell line. *J. Biol. Chem.* 272: 23317-23322.
- Kusama-Eguchi, K., et al. 2010. Hind-limb paraparesis in a rat model for neurolathyrism associated with apoptosis and an impaired vascular endothelial growth factor system in the spinal cord. *J. Comp. Neurol.* 518: 928-942.
- Mehnert, J.M., et al. 2010. Quantitative expression of VEGF, VEGF-R1, VEGF-R2, and VEGF-R3 in melanoma tissue microarrays. *Hum. Pathol.* 41: 375-384.
- Andersson, M.K., et al. 2010. Nuclear expression of FLT1 and its ligand PGF in FUS-DDIT3 carrying myxoid liposarcomas suggests the existence of an intracrine signaling loop. *BMC Cancer* 10: 249.
- Dhondt, J., et al. 2011. Neuronal FLT1 receptor and its selective ligand VEGF-B protect against retrograde degeneration of sensory neurons. *FASEB J.* 25: 1461-1473.
- Mangia, A., et al. 2011. Human epidermal growth factor receptor 2, Na⁺/H⁺ exchanger regulatory factor 1, and breast cancer susceptibility gene-1 as new biomarkers for familial breast cancers. *Hum. Pathol.* 11: 1589-1595.
- Anselmi, F., et al. 2012. c-ABL modulates MAP kinases activation downstream of VEGFR-2 signaling by direct phosphorylation of the adaptor proteins GRB2 and NCK1. *Angiogenesis* 15: 187-197.

MONOS
Satisfaction
Guaranteed

Try **Flt-1 (D-2): sc-271789**, our highly recommended monoclonal alternatives to Flt-1 (C-17). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Flt-1 (D-2): sc-271789**.