SANTA CRUZ BIOTECHNOLOGY, INC.

Flt-4 (G-3): sc-365748

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

Flt-4 (G-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1271-1298 at the C-terminus of Flt-4 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365748 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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.

APPLICATIONS

Flt-4 (G-3) is recommended for detection of Flt-4 p170 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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.

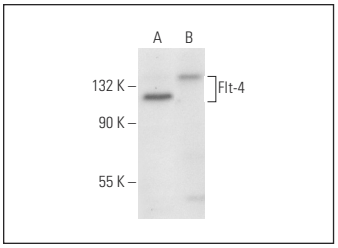
Molecular Weight of Flt-4: 150 kDa.

Positive Controls: Flt-4 (h): 293T Lysate: sc-369404, TF-1 cell lysate: sc-2412 or human liver extract: sc-363766.

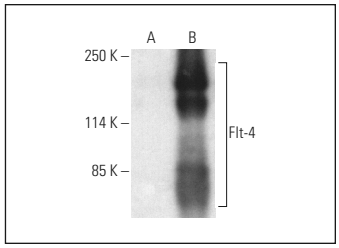
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Flt-4 (G-3): sc-365748. Western blot analysis of Flt-4 expression in TF-1 whole cell lysate (**A**) and human liver tissue extract (**B**).



Flt-4 (G-3): sc-365748. Western blot analysis of Flt-4 expression in non-transfected: sc-117752 (**A**) and human Flt-4 transfected: sc-369404 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhu, Y., et al. 2016. Regulation of expression level of Fms-like tyrosine kinase-4 is related to osteoclast differentiation. Arch. Med. Sci. 12: 502-506.
2. Esposito, E., et al. 2019. Brain-to-cervical lymph node signaling after stroke. Nat. Commun. 10: 5306.
3. Betterman, K.L., et al. 2020. Atypical cadherin Fat4 orchestrates lymphatic endothelial cell polarity in response to flow. J. Clin. Invest. 130: 3315-3328.

PROTOCOLS

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

CONJUGATES

See **Flt-4 (E-3): sc-514825** for Flt-4 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.