

VG5Q (N-16): sc-47570

BACKGROUND

Angiogenic factors are critical to the initiation of angiogenesis and maintenance of the vascular network. The angiogenic factor vasculogenesis gene on 5q (VG5Q, formally named AGGF1) binds to endothelial cells and promotes cell proliferation and angiogenesis. Suppression of VG5Q inhibits vessel formation. VG5Q may also play a role in the autocrine system. It is a secreted cytoplasmic protein that interacts with TWEAK (also designated TNFSF12), an angiogenic factor. VG5Q is widely expressed, but highest levels are detected in various types of endothelial cells, osteoblasts and in smooth muscle cells. Mutations in the VG5Q gene result in the vascular disease Klippel-Trenaunay syndrome (KTS), which results in asymmetric overgrowth.

REFERENCES

1. Tian, X.L., et al. 2004. Identification of an angiogenic factor that when mutated causes susceptibility to Klippel-Trenaunay syndrome. *Nature* 427: 640-645.
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3. Callebaut, I. and Mornon, J.P. 2005. OCRE: a novel domain made of imperfect, aromatic-rich octamer repeats. *Bioinformatics* 21: 699-702.
4. Wang, Q.K. 2005. Update on the molecular genetics of vascular anomalies. *Lymphat. Res. Biol.* 3: 226-233.
5. Barker, K.T., et al. 2006. Is the E133K allele of VG5Q associated with Klippel-Trenaunay and other overgrowth syndromes? *J. Med. Genet.* 43: 613-614.
6. Farina, A., et al. 2006. Evidence of genetic underexpression in chorionic villi samples of euploid fetuses with increased nuchal translucency at 10-11 weeks' gestation. *Prenat. Diagn.* 26: 128-133.
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CHROMOSOMAL LOCATION

Genetic locus: AGGF1 (human) mapping to 5q13.3; Aggf1 (mouse) mapping to 13 D1.

SOURCE

VG5Q (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of VG5Q 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-47570 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VG5Q (N-16) is recommended for detection of VG5Q isoforms 1, 2 and 3 of mouse 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).

VG5Q (N-16) is also recommended for detection of VG5Q isoforms 1, 2 and 3 in additional species, including bovine and porcine.

Suitable for use as control antibody for VG5Q siRNA (h): sc-61780, VG5Q siRNA (m): sc-61781, VG5Q shRNA Plasmid (h): sc-61780-SH, VG5Q shRNA Plasmid (m): sc-61781-SH, VG5Q shRNA (h) Lentiviral Particles: sc-61780-V and VG5Q shRNA (m) Lentiviral Particles: sc-61781-V.

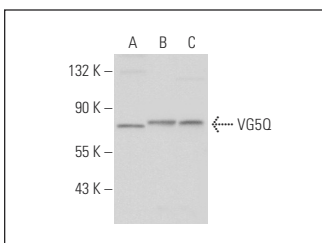
Molecular Weight of VG5Q: 84 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176, Jurkat whole cell lysate: sc-2204 or Ramos cell lysate: sc-2216.

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



VG5Q (N-16): sc-47570. Western blot analysis of VG5Q expression in U-251-MG (A), Jurkat (B) and Ramos (C) whole cell lysates.

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.