

Vangl2 (N-13): sc-46561

BACKGROUND

The Vang family of proteins are integral membrane proteins that are homologs of the *Drosophila* tissue polarity gene strabismus. The gene encoding for Van Gogh-like protein 1 (Vangl1), also designated strabismus 2 (STB2), localizes to chromosome 1p13.1. Van Gogh-like protein 2 (Vangl2), also designated strabismus1 (STB1), localizes on chromosome 1q23.2. Vangl1 is expressed in testis and ovary, but also in gastric and pancreatic cancer. Vangl proteins play a key developmental role in establishing planar cell polarity (PCP) and in regulating convergent extension (CE) movements during embryogenesis. Vangl1 and Vangl2 are both downregulated in several cancer cell lines and primary tumors.

CHROMOSOMAL LOCATION

Genetic locus: VANGL2 (human) mapping to 1q23.2; Vangl2 (mouse) mapping to 1 H3.

SOURCE

Vangl2 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of Vangl2 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-46561 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

Vangl2 (N-13) is recommended for detection of Vangl2 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).

Vangl2 (N-13) is also recommended for detection of Vangl2 in additional species, including bovine.

Suitable for use as control antibody for Vangl2 siRNA (h): sc-45595, Vangl2 siRNA (m): sc-45596, Vangl2 shRNA Plasmid (h): sc-45595-SH, Vangl2 shRNA Plasmid (m): sc-45596-SH, Vangl2 shRNA (h) Lentiviral Particles: sc-45595-V and Vangl2 shRNA (m) Lentiviral Particles: sc-45596-V.

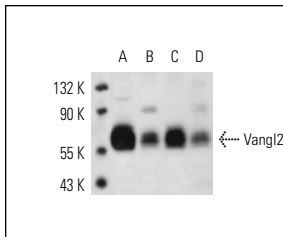
Molecular Weight of Vangl2: 65 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, Vangl2 (m): 293T Lysate: sc-124536 or NIH/3T3 whole cell lysate: sc-2210.

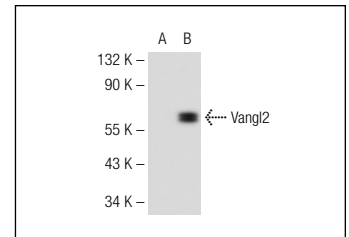
RECOMMENDED SECONDARY REAGENTS

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



Vangl2 (N-13): sc-46561. Western blot analysis of Vangl2 expression in IMR-32 (A), NIH/3T3 (B) and SK-N-SH (C) whole cell lysates and rat brain tissue extract (D).



Vangl2 (N-13): sc-46561. Western blot analysis of Vangl2 expression in non-transfected: sc-117752 (A) and mouse Vangl2 transfected: sc-124536 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Montcouquiol, M., et al. 2006. Asymmetric localization of Vangl2 and Fz3 indicate novel mechanisms for planar cell polarity in mammals. *J. Neurosci.* 26: 5265-5275.
- Paudyal, A., et al. 2010. The novel mouse mutant, chuzhoi, has disruption of Ptk7 protein and exhibits defects in neural tube, heart and lung development and abnormal planar cell polarity in the ear. *BMC Dev. Biol.* 10: 87.
- Sugiyama, Y., et al. 2010. Secreted frizzled-related protein disrupts PCP in eye lens fiber cells that have polarised primary cilia. *Dev. Biol.* 338: 193-201.
- Nishikawa, S. and Kawamoto, T. 2012. Planar cell polarity protein localization in the secretory ameloblasts of rat incisors. *J. Histochem. Cytochem.* 60: 376-385.

RESEARCH USE

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


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Try **Vangl2 (C-2): sc-515187** or **Vangl2 (C-8): sc-515154**, our highly recommended monoclonal alternatives to Vangl2 (N-13).