

# Vangl1 (G-17): sc-46557

## BACKGROUND

The Vang family of proteins are integral membrane proteins that are homologues of the *Drosophila* tissue polarity gene strabismus. The gene encoding for Van Gogh-like protein 1 (Vangl1), also designated strabismus 2 (STB2), localizes to human chromosome 1p13.1. Van Gogh-like protein 2 (Vangl2), also designated strabismus 1 (STB1), localizes to chromosome 1q23.2.

Vangl1 is expressed primarily in testis and ovary, but is also expressed 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.

## REFERENCES

1. Torban, E., et al. 2004. Van Gogh-like 2 (strabismus) and its role in planar cell polarity and convergent extension in vertebrates. *Trends Genet.* 20: 570-577.
2. Torban, E., et al. 2004. Independent mutations in mouse Vangl2 that cause neural tube defects in looptail mice impair interaction with members of the dishevelled family. *J. Biol. Chem.* 279: 52703-52713.
3. Jessen, J.R., et al. 2004. Identification and developmental expression pattern of Van Gogh-like 1, a second zebrafish strabismus homologue. *Gene Expr. Patterns* 4: 339-344.
4. Lu, X., et al. 2004. PTK7/CCK-4 is a novel regulator of planar cell polarity in vertebrates. *Nature* 430: 93-98.
5. Katoh, M., et al. 2005. Identification and characterization of rat Ankrd6 gene in silico. *Int. J. Mol. Med.* 15: 359-363.

## CHROMOSOMAL LOCATION

Genetic locus: VANGL1 (human) mapping to 1p13.1, VANGL2 (human) mapping to 1q23.2; Vangl1 (mouse) mapping to 3 F2.2, Vangl2 (mouse) mapping to 1 H3.

## SOURCE

Vangl1 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Vangl1 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-46557 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.

## RESEARCH USE

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

## APPLICATIONS

Vangl1 (G-17) is recommended for detection of Vangl1 and 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).

Vangl1 (G-17) is also recommended for detection of Vangl1 and Vangl2 in additional species, including equine, canine, bovine, porcine and avian.

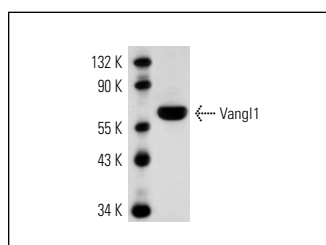
Molecular Weight of Vangl1: 66 kDa.

Positive Controls: mouse testis extract: sc-2405, SW-13 cell lysate: sc-24778 or HOS cell lysate: sc-2275.

## 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



Vangl1 (G-17): sc-46557. Western blot analysis of Vangl1 expression in mouse testis tissue extract.

## SELECT PRODUCT CITATIONS

1. Nishikawa, S. and Kawamoto, T. 2012. Planar cell polarity protein localization in the secretory ameloblasts of rat incisors. *J. Histochem. Cytochem.* 60: 376-385.

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Try **Vangl1 (E-3): sc-166844**, our highly recommended monoclonal alternative to Vangl1 (G-17).