

Vangl2 (C-2): sc-515187

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 strabismus 1 (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.

REFERENCES

- 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.
- 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.
- Lu, X., et al. 2004. PTK7/CCK-4 is a novel regulator of planar cell polarity in vertebrates. *Nature* 430: 93-98.
- 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.
- 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: VANGL2 (human) mapping to 1q23.2; Vangl2 (mouse) mapping to 1 H3.

SOURCE

Vangl2 (C-2) is a mouse monoclonal antibody raised against amino acids 268-322 mapping within a cytoplasmic domain of Vangl2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Vangl2 (C-2) is available conjugated to agarose (sc-515187 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515187 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515187 PE), fluorescein (sc-515187 FITC), Alexa Fluor® 488 (sc-515187 AF488), Alexa Fluor® 546 (sc-515187 AF546), Alexa Fluor® 594 (sc-515187 AF594) or Alexa Fluor® 647 (sc-515187 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515187 AF680) or Alexa Fluor® 790 (sc-515187 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

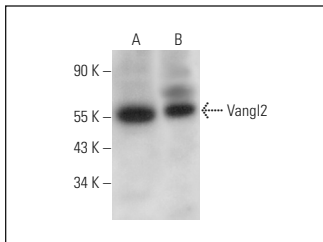
Vangl2 (C-2) is recommended for detection of Vangl2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 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.

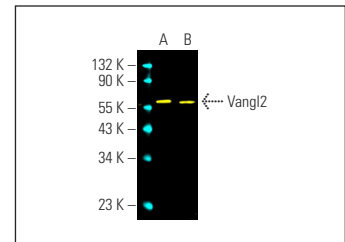
Molecular Weight of Vangl2: 65 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, AN3 CA cell lysate: sc-24662 or human brain extract: sc-364375.

DATA



Vangl2 (C-2): sc-515187. Western blot analysis of Vangl2 expression in IMR-32 whole cell lysate (A) and human brain tissue extract (B).



Vangl2 (C-2) Alexa Fluor® 488: sc-515187 AF488. Direct fluorescent western blot analysis of Vangl2 expression in AN3 CA whole cell lysate (A) and human brain tissue extract (B). Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 647: sc-516791.

SELECT PRODUCT CITATIONS

- Gong, Y., et al. 2021. Vangl2 limits chaperone-mediated autophagy to balance osteogenic differentiation in mesenchymal stem cells. *Dev. Cell* 56: 2103-2120.e9.
- Ban, Y., et al. 2021. Prickle promotes the formation and maintenance of glutamatergic synapses by stabilizing the intercellular planar cell polarity complex. *Sci. Adv.* 7: eabh2974.
- Sheng, X., et al. 2021. Vangl2 participates in the primary ciliary assembly under low fluid shear stress in hUVECs. *Cell Tissue Res.* E-published.

STORAGE

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

PROTOCOLS

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

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