

# Dvl-2 (C-2): sc-271319

## BACKGROUND

Mammalian homologs of the *Drosophila* dishevelled (Dsh) gene have been identified, including Dvl-1, Dvl-2 and Dvl-3. The mammalian dishevelled proteins contain three homologous domains, two of which are unrelated to any other known protein. The third region is homologous to the discs-large homology domain of *Drosophila* discs-large-1, a tumor suppressor protein. Like their *Drosophila* counterpart, the dishevelled proteins are thought to be involved in embryogenesis. Overexpression of Dvl-1 has been shown to inhibit the phosphorylation of Tau by GSK-3 $\beta$ . This finding may prove to be important in Alzheimer's studies, which have shown that Tau is hyperphosphorylated. In *Drosophila*, Dsh is a component of the frizzled signaling pathway. Both mammalian dishevelled and frizzled proteins are components of the Wnt signalling pathway.

## REFERENCES

1. Sussman, D.J., et al. 1994. Isolation and characterization of a mouse homolog of the *Drosophila* segment polarity gene dishevelled. *Dev. Biol.* 166: 73-86.
2. Krasnow, R.E., et al. 1995. Dishevelled is a component of the frizzled signaling pathway in *Drosophila*. *Development* 121: 4095-4102.
3. Tsang, M., et al. 1996. Isolation and characterization of mouse dishevelled-3. *Dev. Dyn.* 207: 253-262.

## CHROMOSOMAL LOCATION

Genetic locus: DVL2 (human) mapping to 17p13.1; Dvl2 (mouse) mapping to 11 B3.

## SOURCE

Dvl-2 (C-2) is a mouse monoclonal antibody raised against amino acids 623-697 of Dvl-2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $\gamma_1$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Dvl-2 (C-2) is recommended for detection of Dvl-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 Dvl-2 siRNA (h): sc-35230, Dvl-2 siRNA (m): sc-35231, Dvl-2 shRNA Plasmid (h): sc-35230-SH, Dvl-2 shRNA Plasmid (m): sc-35231-SH, Dvl-2 shRNA (h) Lentiviral Particles: sc-35230-V and Dvl-2 shRNA (m) Lentiviral Particles: sc-35231-V.

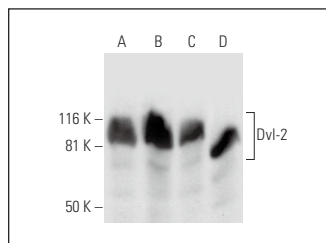
Molecular Weight of Dvl-2: 92 kDa.

Positive Controls: MDA-MB-231 cell lysate: sc-2232, MCF7 whole cell lysate: sc-2206 or ZR-75-1 cell lysate: sc-2241.

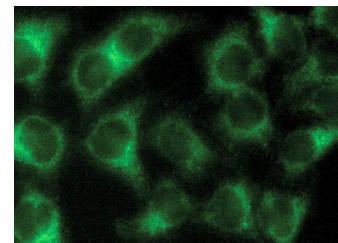
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



Dvl-2 (C-2): sc-271319. Western blot analysis of Dvl-2 expression in MCF7 (A), MDA-MB-231 (B), MDA-MB-468 (C) and ZR-75-1 (D) whole cell lysates.



Dvl-2 (C-2): sc-271319. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS

1. Li, D., et al. 2011. Dishevelled-associated activator of morphogenesis 1 (Daam1) is required for heart morphogenesis. *Development* 138: 303-315.
2. Sharma, M., et al. 2021. Dishevelled-1 DIX and PDZ domain lysine residues regulate oncogenic Wnt signaling. *Oncotarget* 12: 2234-2251.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **Dvl-2 (D-6): sc-390303** for Dvl-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.