

Dvl-1 (Q-25): sc-133525

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 β . 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 signaling 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. Yang-Snyder, J., et al. 1996. A frizzled homolog functions in a vertebrate Wnt signaling pathway. *Curr. Biol.* 6: 1302-1306.
4. Pizzuti, A., et al. 1996. Human homologue sequences to the *Drosophila* dishevelled segment-polarity are deleted in the DiGeorge syndrome. *Am. J. Hum. Genet.* 58: 722-729.
5. Tsang, M., et al. 1996. Isolation and characterization of mouse dishevelled-3. *Dev. Dyn.* 207: 253-262.
6. Semenov, M.V., et al. 1997. Human dishevelled genes constitute a DHR-containing multigene family. *Genomics* 42: 302-310.

CHROMOSOMAL LOCATION

Genetic locus: DVL1 (human) mapping to 1p36.33.

SOURCE

Dvl-1 (Q-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic Dvl-1 peptide of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

Store at 4 $^{\circ}$ 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 or our catalog for detailed protocols and support products.

APPLICATIONS

Dvl-1 (Q-25) is recommended for detection of Dvl-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Dvl-1 siRNA (h): sc-35228, Dvl-1 shRNA Plasmid (h): sc-35228-SH and Dvl-1 shRNA (h) Lentiviral Particles: sc-35228-V.

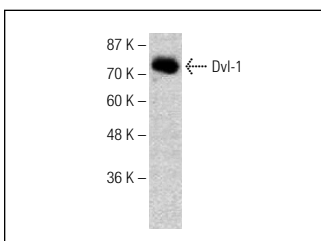
Molecular Weight of Dvl-1: 85 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410 or K-562 whole cell lysate: sc-2203.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



Dvl-1 (Q-25): sc-133525. Western blot analysis of Dvl-1 expression in K562 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Goto, T., et al. 2013. IQGAP1 functions as a modulator of dishevelled nuclear localization in Wnt signaling. *PLoS ONE* 8: e60865.

RESEARCH USE

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



Try **Dvl-1 (3F12): sc-8025** or **Dvl (B-4): sc-166303**, our highly recommended monoclonal alternatives to Dvl-1 (Q-25). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Dvl-1 (3F12): sc-8025**.