

Dvl-3 (G-10): sc-377289

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 signalling pathway.

CHROMOSOMAL LOCATION

Genetic locus: DVL3 (human) mapping to 3q27.1; Dvl3 (mouse) mapping to 16 A3.

SOURCE

Dvl-3 (G-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 613-651 near the C-terminus of Dvl-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Dvl-3 (G-10) is available conjugated to agarose (sc-377289 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377289 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-377289 PE), fluorescein (sc-377289 FITC), Alexa Fluor[®] 488 (sc-377289 AF488) or Alexa Fluor[®] 647 (sc-377289 AF647), 200 μ g/ml, for IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-377289 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Dvl-3 (G-10) is recommended for detection of Dvl-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Dvl-3 (G-10) is also recommended for detection of Dvl-3 in additional species, including bovine.

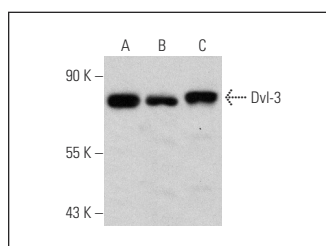
Suitable for use as control antibody for Dvl-3 siRNA (h): sc-40491, Dvl-3 siRNA (m): sc-40492, Dvl-3 shRNA Plasmid (h): sc-40491-SH, Dvl-3 shRNA Plasmid (m): sc-40492-SH, Dvl-3 shRNA (h) Lentiviral Particles: sc-40491-V and Dvl-3 shRNA (m) Lentiviral Particles: sc-40492-V.

Molecular Weight of Dvl-3: 90 kDa.

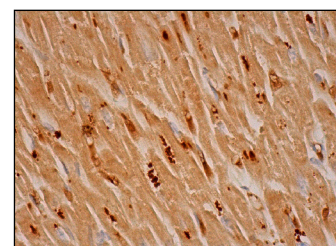
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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-3 (G-10): sc-377289. Western blot analysis of Dvl-3 expression in K-562 (A), RAW 264.7 (B) and RPE-J (C) whole cell lysates.



Dvl-3 (G-10): sc-377289. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

1. Kadir, R., et al. 2016. ALFY-controlled DVL3 autophagy regulates Wnt signaling, determining human brain size. *PLoS Genet.* 12: e1005919.

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 for detailed protocols and support products.

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