# SANTA CRUZ BIOTECHNOLOGY, INC.

# Dvl-1 (3F12): sc-8025



BACKGROUND

Mammalian homologs of the *Drosophila* dishevelled (Dsh) gene have been identified, including DvI-1, DvI-2 and DvI-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 DvI-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 signaling pathway.

# CHROMOSOMAL LOCATION

Genetic locus: DVL1 (human) mapping to 1p36.33; Dvl1 (mouse) mapping to 4 E2.

## SOURCE

DvI-1 (3F12) is a mouse monoclonal antibody raised against amino acids 651-695 mapping at the C-terminus of dishevelled-1 (DvI-1) of mouse origin.

#### PRODUCT

Each vial contains 200  $\mu g~lgG_{2a}$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DvI-1 (3F12) is available conjugated to agarose (sc-8025 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8025 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8025 PE), fluorescein (sc-8025 FITC), Alexa Fluor<sup>®</sup> 488 (sc-8025 AF488), Alexa Fluor<sup>®</sup> 546 (sc-8025 AF546), Alexa Fluor<sup>®</sup> 594 (sc-8025 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-8025 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-8025 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-8025 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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#### **APPLICATIONS**

Dvl-1 (3F12) is recommended for detection of Dvl-1 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), 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).

Suitable for use as control antibody for DvI-1 siRNA (h): sc-35228, DvI-1 siRNA (m): sc-35229, DvI-1 shRNA Plasmid (h): sc-35228-SH, DvI-1 shRNA Plasmid (m): sc-35229-SH, DvI-1 shRNA (h) Lentiviral Particles: sc-35228-V and DvI-1 shRNA (m) Lentiviral Particles: sc-35229-V.

Molecular Weight of Dvl-1: 85 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, K-562 whole cell lysate: sc-2203 or KNRK whole cell lysate: sc-2214.

## STORAGE

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

# DATA





Dvl-1 (3F12): sc-8025. Western blot analysis of Dvl-1 expression in SK-N-SH ( $\pmb{A}$ ) and KNRK  $(\pmb{B})$  whole cell lysates.

DvI-1 (3F12): sc-8025. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

# SELECT PRODUCT CITATIONS

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- 10. Solic, I., et al. 2021. Expression pattern of α-Tubulin, inversin and its target dishevelled-1 and morphology of primary cilia in normal human kidney development and diseases. Int. J. Mol. Sci. 22: 3500.

#### **RESEARCH USE**

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