



# dishevelled (dN-15): sc-15690

## BACKGROUND

*Drosophila melanogaster* is a proven and effective model for studying developmental and cellular processes common to higher eukaryotes. Approximately 13,600 genes have been elucidated from more than 120 megabases of euchromatin, and they are organized among the chromosomes 2, 3, 4, X and Y, with the Y chromosome being predominately heterochromatic. *Drosophila* genes can be categorized based on the type of protein for which they encode and are represented by six major classifications, which include intracellular signaling proteins, transmembrane proteins, RNA binding proteins, secreted factors, transcription regulators (basic helix-loop-helix, homeodomain containing, zinc finger containing, and chromatin associated) or other functional proteins. Among these numerous proteins, dishevelled is an intracellular intermediate of the wingless pathway that mediates proper segment and tissue polarity.

## REFERENCES

1. Klingensmith, J., Nusse, R. and Perrimon, N. 1994. The *Drosophila* segment polarity gene dishevelled encodes a novel protein required for response to the wingless signal. *Genes Dev.* 8: 118-130.
2. Adams, M.D., Celniker, S.E., Holt, R.A., Evans, C.A., Gocayne, J.D., Amanatides, P., et al. 2000. The genome sequence of *Drosophila melanogaster*. *Science* 287: 2185-2195.
3. Rousset, R., Wharton, K.A. Jr., Zimmermann, G., and Scott, M.P. 2002. Zinc-dependent interaction between dishevelled and the *Drosophila* Wnt antagonist naked cuticle. *J. Biol. Chem.* 277: 49019-49026.
4. Penton, A., Wodarz, A., and Nusse, R. 2002. A mutational analysis of dishevelled in *Drosophila* defines novel domains in the dishevelled protein as well as novel suppressing alleles of Axin. *Genetics* 161: 747-762.
5. Cliffe, A., Hamada, F., and Bienz, M. 2003. A role of dishevelled in relocating Axin to the plasma membrane during wingless signaling. *Curr. Biol.* 13: 960-966.
6. Fanto, M. and McNeill, H. 2004. Planar polarity from flies to vertebrates. *J. Cell. Sci.* 117: 527-353.
7. Seto, E.S., and Bellen, H.J. 2004. The ins and outs of Wingless signaling. *Trends Cell Biol.* 14: 45-53.
8. The Interactive Fly. <http://www.sdbonline.org/fly/aimain/1aahome.htm>. <http://www.sdbonline.org/fly/segment/dishevel.htm>
9. LocusLink Report (LocusID: 32078). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## SOURCE

dishevelled (dN-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of dishevelled of *Drosophila melanogaster* origin.

## STORAGE

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

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15690 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

dishevelled (dN-15) is recommended for detection of dishevelled of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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) or our catalog for detailed protocols and support products.