

## frizzled (1C11): sc-13559



The Power to Question

## 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, Frizzled (Fz) mediates proper segment and tissue polarity through coordinating the cytoskeletons of pupal epidermal cells to ensure the formation of a parallel array of cuticular hairs and bristles.

## REFERENCES

1. Adler, P.N., Vinson, C., Park, W.J., Conover, S. and Klein, L. 1990. Molecular structure of frizzled, a *Drosophila* tissue polarity gene. *Genetics* 126: 401-416.
2. Kristensen, T., Lopez, R. and Prydz, H. 1992. An estimate of the sequencing error frequency in the DNA sequence databases. *DNA Seq.* 2: 343-346.
3. 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.
4. Chen, C.M., Strapps, W., Tomlinson, A. and Struhl, G. 2004. Evidence that the cysteine-rich domain of *Drosophila* frizzled family receptors is dispensable for transducing Wingless. *Proc. Natl. Acad. Sci. USA* 101: 15961-15966.
5. Katanaev, V.L., Ponzielli, R., Semeriva, M. and Tomlinson, A. 2005. Trimeric G protein-dependent frizzled signaling in *Drosophila*. *Cell* 120: 111-122.
6. Djiane, A., Yogev, S. and Mlodzik, M. 2005. The apical determinants  $\alpha$ PKC and  $\delta$ Patj regulate frizzled-dependent planar cell polarity in the *Drosophila* eye. *Cell* 121: 621-631.

## SOURCE

frizzled (1C11) is a mouse monoclonal antibody raised against amino acids 1-252 of frizzled of *Drosophila melanogaster* origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

frizzled (1C11) is available conjugated to agarose (sc-13559 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-13559 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13559 PE), fluorescein (sc-13559 FITC), Alexa Fluor<sup>®</sup> 488 (sc-13559 AF488), Alexa Fluor<sup>®</sup> 546 (sc-13559 AF546), Alexa Fluor<sup>®</sup> 594 (sc-13559 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-13559 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-13559 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-13559 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

frizzled (1C11) is recommended for detection of frizzled of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## 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<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) 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<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## SELECT PRODUCT CITATIONS

1. Anitha, P., Priyadarsini, R.V., Kavitha, K., Thiyagarajan, P. and Nagini, S. 2011. Ellagic acid coordinately attenuates Wnt/ $\beta$ -catenin and NF $\kappa$ B signaling pathways to induce intrinsic apoptosis in an animal model of oral oncogenesis. *Eur. J. Nutr.* 52: 75-84.
2. Vidya Priyadarsini, R., Senthil Murugan, R. and Nagini, S. 2012. Aberrant activation of Wnt/ $\beta$ -catenin signaling pathway contributes to the sequential progression of DMBA-induced HBP carcinomas. *Oral Oncol.* 48: 33-39.
3. Siddavaram, N., Ramamurthi, V.P., Veeran, V. and Mishra, R. 2012. Chlorophyllin abrogates canonical Wnt/ $\beta$ -catenin signaling and angiogenesis to inhibit the development of DMBA-induced hamster cheek pouch carcinomas. *Cell. Oncol.* 35: 385-395.

## 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.

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