SANTA CRUZ BIOTECHNOLOGY, INC.

hedgehog (d-300): sc-25759

SANTA CRUZ BIOTECHNOLOGY

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. The *Drosophila* hedgehog gene maps to chromosome 3-81.2 and encodes a 471 amino acid protein. Hedgehog protein, also designated HH, mediates, in part, the establishment of segment polarity for the 14 para-segments in the trunk (thorax and abdomen) of the fly. These 14 segments eventually develop into the head, thorax and abdomen.

REFERENCES

1. Tabata, T., Eaton, S. and Kornberg, T.B. 1992. The *Drosophila* hedgehog gene is expressed specifically in posterior compartment cells and is a target of engrailed regulation. Genes Dev. 6: 2635-2645.
2. Tashiro, S., Michiue, T., Higashijima, S., Zenno, S., Ishimaru, S., Takahashi, F., Orihara, M., Kojima, T. and Saigo, K. 1993. Structure and expression of hedgehog, a *Drosophila* segment-polarity gene required for cell-cell communication. Gene 124: 183-189.
3. Adams, M.D., Celniker, S.E., Holt, R.A., Evans, C.A., Gocayne, J.D. and Amanatides, P. et al. 2000. The genome sequence of *Drosophila melanogaster*. Science 287: 2185-295.
4. Chamoun, Z., Mann, R.K., Nellen, D., von Kessler, D.P., Bellotto, M., Beachy, P.A. and Basler, K. 2001. Skinny hedgehog, an acyltransferase required for palmitoylation and activity of the hedgehog signal. Science 293: 2080-2084.
5. The Interactive Fly. http://sdb.bio.purdue.edu/fly/aimain/1aahome.htm. http://sdb.bio.purdue.edu/fly/segment/hedghog1.htm
6. LocusLink Report (LocusID:42737). http://www.ncbi.nlm.nih.gov/LocusLink/

SOURCE

hedgehog (d-300) is a rabbit polyclonal antibody raised against amino acids 1-300 of hedgehog of *Drosophila melanogaster* origin.

PRODUCT

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

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.

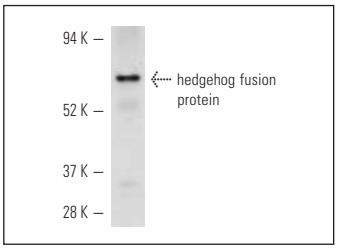
APPLICATIONS

hedgehog (d-300) is recommended for detection of hedgehog of Drosophila melanogaster 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) 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 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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



hedgehog (d-300): sc-25759. Western blot analysis of *Drosophila* recombinant hedgehog fusion protein.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.