SANTA CRUZ BIOTECHNOLOGY, INC.

Sdt (dN-16): sc-26944

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. Morphogenesis and cell differentiation in *Drosophila* requires accurate control of cell division. Stardust (Sdt) encodes a single PDZ domain MAGUK (membrane-associated guanylate kinase) protein expressed in all primary embryonic epithelia from the onset of gastrulation. Sdt colocalizes with Crumbs at the apicolateral boundary, although their expression patterns differ in sensory organs. Loss-of-function mutations in the *Drosophila* Crumbs and Sdt genes lead to the loss of cell polarity in most ectodermally derived epithelia.

REFERENCES

1. Lehner, C.F. 1991. Pulling the string: cell cycle regulation during *Drosophila* development. Semin. Cell Biol. 2: 223-31.
2. Grawe, F., Wodarz, A., Lee, B., Knust, E. and Skaer, H. 1996. The *Drosophila* genes Crumbs and stardust are involved in the biogenesis of adherens junctions. Development 122: 951-959.
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. Mata, J., Curado, S., Ephrussi, A. and Rorth, P. 2000. Tribbles coordinates mitosis and morphogenesis in *Drosophila* by regulating string/Cdc25 proteolysis. Cell 101: 511-22.
5. Hong, Y., Stronach, B., Perrimon, N., Jan, L.Y. and Jan, Y.N. 2001. *Drosophila* Stardust interacts with Crumbs to control polarity of epithelia but not neuroblasts. Nature. 414: 634-638.
6. The Interactive Fly. http://www.sdbonline.org/fly/aimain/1aahome.htm. http://www.sdbonline.org/fly/aimain/6biochem.htm

SOURCE

Sdt (dN-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Sdt 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.

Blocking peptide available for competition studies, sc-26944 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Sdt (dN-16) is recommended for detection of Sdt 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 Blotto 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.

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 or our catalog for detailed protocols and support products.