SANTA CRUZ BIOTECHNOLOGY, INC.

APPL (d-300): sc-98268

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* Appl gene encodes a transmembrane protein similar to human β-amyloid precursor protein (APP). APPL protein is exclusive to neurons .

REFERENCES

1. Rosen, D.R., Martin-Morris, L., Luo, L.Q. and White, K. 1989. A *Drosophila* gene encoding a protein resembling the human β-amyloid protein precursor. Proc. Natl. Acad. Sci. USA 86: 2478-2482.
2. Torroja, L., Luo, L. and White, K. 1996. APPL, the *Drosophila* member of the APP-family, exhibits differential trafficking and processing in CNS neurons. J. Neurosci. 16: 4638-4650.
3. Torroja, L., Chu, H., Kotovsky, I. and White, K. 1999. Neuronal overexpression of APPL, the *Drosophila* homologue of the amyloid precursor protein (APP), disrupts axonal transport. Curr. Biol. 9: 489-492.
4. Adams, M.D., Celniker, S.E., Holt, R.A., Evans, C.A., Gocayne, J.D., Amanatides, P., Scherer, S.E., Li, P.W., Hoskins, R.A., Galle, R.F., George, R.A., Lewis, S.E., Richards, S., Ashburner, M., Henderson, S.N., et al. 2000. The genome sequence of *Drosophila melanogaster.* Science 287: 2185-2295.
5. Society for Developmental Biology. The Interactive Fly. 2003. http://sdb.bio.purdue.edu/fly/aimain/1aahome.htm

SOURCE

APPL (d-300) is a rabbit polyclonal antibody raised against amino acids 31-330 mapping within an N-terminal extracellular domain of APPL 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.

PROTOCOLS

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

APPLICATIONS

APPL (d-300) is recommended for detection of APPL 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.

RESEARCH USE

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