SANTA CRUZ BIOTECHNOLOGY, INC.

Pins (dC-20): sc-27213

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Asymmetric division of neural progenitors is a key mechanism by which neuronal diversity in the *Drosophila* central nervous system is generated. Asymmetric cell division requires the orientation of mitotic spindles along the cell-polarity axis. In *Drosophila* neuroblasts, this involves the interaction of the proteins Inscuteable (Insc) and Partner of inscuteable (Pins). Pins, also known as Rapsynoid (Raps), encodes a 70 kda protein. The Pins tetratricopeptide (TPR) motif specifically interacts with the Insc asymmetric localization domain.

REFERENCES

1. Schaefer, M., et al. 2000. A protein complex containing Inscuteable and the Galpha-binding protein Pins orients asymmetric cell divisions in *Drosophila*. Curr. Biol. 10: 353-362.
2. Parmentier, M.L., et al. 2000. Rapsynoid/partner of inscuteable controls asymmetric division of larval neuroblasts in *Drosophila*. J. Neurosci. 20: 84.
3. Du, Q., et al. 2001. A mammalian Partner of inscuteable binds NuMA and regulates mitotic spindle organization. Nat. Cell. Biol. 3: 1069-1075.
4. Kimple, R.J., et al. 2002. The GoLoco motif: heralding a new tango between G protein signaling and cell division. Mol. Interv. 2: 88-100.
5. Kaushik, R., et al. 2003. Subcellular localization of LGN during mitosis: evidence for its cortical localization in mitotic cell culture systems and its requirement for normal cell cycle progression. Mol. Biol. Cell. 14: 3144-55.
6. Yu, F., et al. 2003. A mouse homologue of *Drosophila* pins can asymmetrically localize and substitute for pins function in *Drosophila* neuroblasts. J. Cell. Sci. 116: 887-896.
7. Yu, F. 2004. Analysis of the roles of Pins and heterotrimeric G proteins in asymmetric division of *Drosophila* neuroblasts. Methods. Enzymol. 389: 364-82.
8. Fuja, T.J., et al. 2004. Asymmetric localization of LGN but not AGS3, two homologs of *Drosophila* pins, in dividing human neural progenitor cells. J. Neurosci. Res. 75: 782-93.
9. Bellaiche, Y., et al. 2004. The planar cell polarity protein Strabismus promotes Pins anterior localization during asymmetric division of sensory organ precursor cells in *Drosophila*. Development. 131: 469-78.

SOURCE

Pins (dC-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Pins 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-27213 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Pins (dC-20) is recommended for detection of Pins 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).

Molecular Weight of Pins: 70 kDa.

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.