SANTA CRUZ BIOTECHNOLOGY, INC.

Vasa (dC-13): sc-26877

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. Vasa is a DEAD-box protein that localizes to the perinuclear region of nurse cells during early oogenesis and later to the pole plasm at the posterior end of the oocyte. Vasa influences normal oocyte differentiation, anterior-posterior egg chamber patterning, dorsal-ventral follicle patterning, posterior embryonic patterning and pole cell specification.

SOURCE

Vasa (dC-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Vasa 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-26877 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Vasa (dC-13) is recommended for detection of Vasa 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).

Molecular Weight of Vasa: 83 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

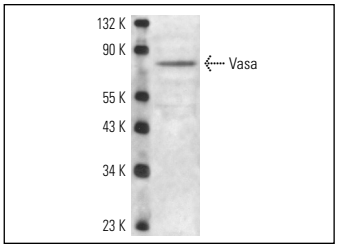
STORAGE

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.

DATA



Vasa (dC-13): sc-26877. Western blot analysis of Vasa expression in *Drosophila* whole cell lysate.

SELECT PRODUCT CITATIONS

1. Vilmos, P., et al. 2007. Application of the dual-tagging gene trap method combined with a novel automatic selection system to identify genes involved in germ cell development in *Drosophila melanogaster.* Acta Biol. Hung. 58: 81-94.
2. Lee, K.S., et al. 2010. *Drosophila* G9a is implicated in germ cell development. Insect. Mol. Biol. 19: 131-139.
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4. Yadlapalli, S., et al. 2011. *Drosophila* male germline stem cells do not asymmetrically segregate chromosome strands. J. Cell. Sci. 124: 933-939.
5. Srinivasan, S., et al. 2012. The receptor tyrosine phosphatase Lar regulates adhesion between *Drosophila* male germline stem cells and the niche. Development 139: 1381-1390.
6. Roth, T.M., et al. 2012. Centrosome misorientation mediates slowing of the cell cycle under limited nutrient conditions in *Drosophila* male germline stem cells. Mol. Biol. Cell 23: 1524-1532.
7. Lim, J.G. and Fuller, M.T. 2012. Somatic cell lineage is required for differentiation and not maintenance of germline stem cells in *Drosophila* testes. Proc. Natl. Acad. Sci. USA 109: 18477-18481.
8. Yuan, H., et al. 2012. Regulation of cyclin A localization downstream of Par-1 function is critical for the centrosome orientation checkpoint in *Drosophila* male germline stem cells. Dev. Biol. 361: 57-67.