



## Zw10 (dN-20): sc-19699

### 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 including 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* zeste white 10 gene maps to chromosome 1 and encodes a 721 amino acid protein known as Zw10. *Drosophila* Zw10 and Rod proteins are kinetochore components that are involved in production and regulation of the force responsible for poleward chromosome motion. Mutations in either the Zw10 or Rod genes of *Drosophila* greatly increase the missegregation of sister chromatids during mitosis.

### REFERENCES

1. Savoian, M.S., et al. 2000. The rate of poleward chromosome motion is attenuated in *Drosophila* Zw10 and rod mutants. *Nat. Cell. Biol.* 2: 948-952.
2. Adams, M.D., et al. 2000. The genome sequence of *Drosophila melanogaster*. *Science* 287: 2185-2195.
3. Scaerou, F., et al. 2001. The Zw10 and Rough Deal checkpoint proteins function together in a large, evolutionarily conserved complex targeted to the kinetochore. *J. Cell. Sci.* 114: 3103-3114.
4. The Interactive Fly. <http://sdb.bio.purdue.edu/fly/aimain/1aahome.htm>.  
<http://sdb.bio.purdue.edu/fly/aimain/6biochem.htm>.
5. LocusLink Report (LocusID: 47874). <http://www.ncbi.nlm.nih.gov/LocusLink/>

### SOURCE

Zw10 (dN-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Zw10 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-19699 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### 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

Zw10 (dN-20) is recommended for detection of Zw10 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 Zw10: 85 kDa.

Positive Controls: Schneider *Drosophila* line 2 whole cell lysate.

### 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.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.