SANTA CRUZ BIOTECHNOLOGY, INC.

Misato (m2): 293T Lysate: sc-121664

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 Misato gene encodes a protein that contains a mixture of peptide motifs found in α, β and γ Tubulins, as well as a motif related to part of the Myosin heavy chain proteins. Null mutations at the Misato locus of *Drosophila melanogaster* are associated with irregular chromosomal segregation at cell division and result in larvae that have reduced levels of imaginal disk tissue, a reduction in brain size and die during the larval stage of development.

REFERENCES

1. Miklos, G.L., Yamamoto, M., Burns, R.G. and Maleszka, R. 1997. An essential cell division gene of *Drosophila*, absent from *Saccharomyces*, encodes an unusual protein with tubulin-like and myosin-like peptide motifs. Proc. Natl. Acad. Sci. USA 94: 5189-5194.
2. Nogales, E., Wolf, S.G. and Downing, K.H. 1998. Structure of the α/β tubulin dimer by electron crystallography. Nature 391: 199-203.
3. 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., et al. 2000. The genome sequence of *Drosophila melanogaster*. Science 287: 2185-2195.
5. LocusLink Report (LocusID: 33119). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: Msto1 (mouse) mapping to 3 F1.

PRODUCT

Misato (m2): 293T Lysate represents a lysate of mouse Misato transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

Misato (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Misato antibodies. Recommended use: 10-20 µl per lane.

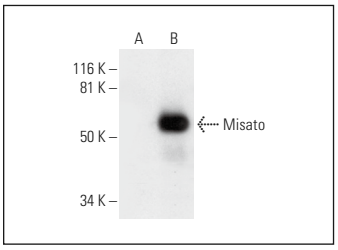
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Misato (E-10): sc-390638 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Misato expression in Misato transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

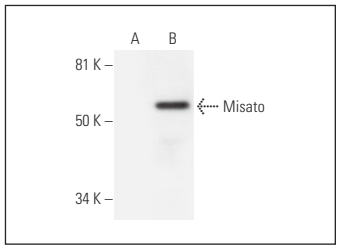
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Misato (E-10): sc-390638. Western blot analysis of Misato expression in non-transfected: sc-117752 (**A**) and mouse Misato transfected: sc-121664 (**B**) 293T whole cell lysates.



Misato (F-8): sc-393391. Western blot analysis of Misato expression in non-transfected: sc-117752 (**A**) and mouse Misato transfected: sc-121664 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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