SANTA CRUZ BIOTECHNOLOGY, INC.

Misato (F-8): sc-393391

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. 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., et al. 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., et al. 1998. Structure of the α β Tubulin dimer by electron crystallography. Nature 391: 199-203.
3. Adams, M.D., et al. 2000. The genome sequence of *Drosophila melanogaster.* Science 287: 2185-2195.
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: 33119). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: MSTO1 (human) mapping to 1q22; Msto1 (mouse) mapping to 3 F1.

SOURCE

Misato (F-8) is a mouse monoclonal antibody raised against amino acids 1-76 mapping at the N-terminus of Misato of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain 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 for detailed protocols and support products.

APPLICATIONS

Misato (E-10) is recommended for detection of Misato of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for Misato siRNA (h): sc-62619, Misato siRNA (m): sc-62620, Misato shRNA Plasmid (h): sc-62619-SH, Misato shRNA Plasmid (m): sc-62620-SH, Misato shRNA (h) Lentiviral Particles: sc-62619-V and Misato shRNA (m) Lentiviral Particles: sc-62620-V.

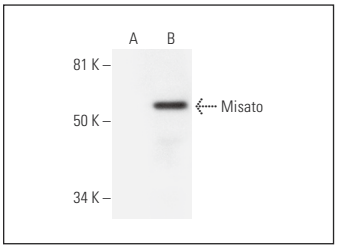
Molecular Weight of Misato: 62 kDa.

Positive Controls: Misato (m2): 293T Lysate: sc-121664.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



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.

RESEARCH USE

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