

Mad (d-80): sc-25760

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. Among these proteins, Mad (Mothers against dpp) protein is a downstream effector of decapentaplegic (dpp) induced signaling cascades that influences proper midgut morphogenesis, imaginal disk development and embryonic dorsal-ventral patterning.

REFERENCES

1. Sekelsky, J.J., Newfeld, S.J., Rafferty, L.A., Chartoff, E.H. and Gelbart, W.M. 1995. Genetic characterization and cloning of Mothers against dpp, a gene required for decapentaplegic function in *Drosophila melanogaster*. *Genetics* 139: 1347-1358.
2. Newfeld, S.J., Mehra, A., Singer, M.A., Wrana, J.L., Attisano, L. and Gelbart, W.M. 1997. Mothers against dpp participates in a DDP/TGF- β responsive serine-threonine kinase signal transduction cascade. *Development* 124: 3167-3176.
3. Adams, M.D., Celniker, S.E., Holt, R.A., Evans, C.A., Gocayne, J.D., Amanatides, P., et al. 2000. The genome sequence of *Drosophila melanogaster*. *Science* 287: 2185-2195.
4. The Interactive Fly. <http://www.sdbonline.org/fly/aimain/1aahome.htm>.
<http://www.sdbonline.org/fly/newgene/mothadpp.htm>
5. LocusLink Report (LocusID:33529). <http://www.ncbi.nlm.nih.gov/LocusLink/>

SOURCE

Mad (d-80) is a rabbit polyclonal antibody raised against amino acids 141-220 of Mad of *Drosophila melanogaster* origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

Mad (d-80) is recommended for detection of Mad of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Agelopoulos, M., McKay, D.J. and Mann, R.S. 2012. Developmental regulation of chromatin conformation by Hox proteins in *Drosophila*. *Cell Rep.* 1: 350-359.

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 or our catalog for detailed protocols and support products.