



Hairy (1/24): sc-53297

BACKGROUND

Hairy is a *Drosophila* pair-rule, 377-amino acid protein that represses transcription and regulates embryonic segmentation and adult bristle patterning. The transcription repression activity of Hairy requires formation of a complex with a corepressor. The Hairy protein localizes to the nuclei of cells in eight distinct regions of the early embryo and is not expressed in the embryonic nervous system. Hairy contains a domain similar to that of the proto-oncogene N-myc that may be involved in protein dimerization and/or DNA binding. Hairy also represses the normal spatial expression of Fushi tarazu, another par-rule protein.

REFERENCES

1. Carroll, S.B., et al. 1989. Expression, function, and regulation of the hairy segmentation protein in the *Drosophila* embryo. *Genes Dev.* 2: 883-890.
2. Rushlow, C.A., et al. 1990. The *Drosophila* hairy and shows homology to N-myc. *EMBO J.* 8: 3095-3103.
3. Hooper, K.L., et al. 1990. Spatial control of hairy protein expression during embryogenesis. *Development* 107: 489-504.
4. Brown, N.L., et al. 1992. hairy gene function in the *Drosophila* eye: normal expression is dispensable but ectopic expression alters cell fates. *Development* 113: 1245-1256.
5. Wainwright, S.M. and Ish-Horowicz, D. 1992. Point mutations in the *Drosophila* hairy gene demonstrate *in vivo* requirements for basic, helix-loop-helix, and WRPW domains. *Mol. Cell. Biol.* 12: 2475-2483.
6. Poortinga, G., et al. 1998. *Drosophila* CtBP: a Hairy-interacting protein required for embryonic segmentation and hairy-mediated transcriptional repression. *EMBO J.* 17: 2067-2078.
7. Kwon, C., et al. 2004. Opposing inputs by Hedgehog and Brinker define a stripe of hairy expression in the *Drosophila* leg imaginal disc. *Development* 131: 2681-2692.
8. Bianchi-Frias, D., et al. 2004. Hairy transcriptional repression targets and cofactor recruitment in *Drosophila*. *PLoS Biol.* 2: E178.
9. Joshi, M., et al. 2006. Delta and Hairy establish a periodic prepattern that positions sensory bristles in *Drosophila* legs. *Dev. Biol.* 293: 64-76.

SOURCE

Hairy (1/24) is a mouse monoclonal antibody raised against Hairy gene product.

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.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Hairy (1/24) is available conjugated to agarose (sc-53297 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53297 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53297 PE), fluorescein (sc-53297 FITC), Alexa Fluor® 488 (sc-53297 AF488), Alexa Fluor® 546 (sc-53297 AF546), Alexa Fluor® 594 (sc-53297 AF594) or Alexa Fluor® 647 (sc-53297 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-53297 AF680) or Alexa Fluor® 790 (sc-53297 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Hairy (1/24) is recommended for detection of Hairy of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Molecular Weight of Hairy: 42 kDa.

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.

SELECT PRODUCT CITATIONS

1. Wartlick, O., et al. 2014. Growth control by a moving morphogen gradient during *Drosophila* eye development. *Development* 141: 1884-1893.

RESEARCH USE

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