



## HMP-2 (cT-20): sc-15520

### BACKGROUND

In flies and vertebrates, Armadillo/ $\beta$ -catenin has a dual function in adhesion and Wg/Wnt signaling. In *Caenorhabditis elegans*, HMP-2 is the only  $\beta$ -catenin homolog that interacts with the single cadherin, HMR-1. HMP-2 plays a role in migrating epithelial cells during morphogenesis of the embryo and its activity is positively regulated by APC-related gene APR-1. hmp-2 and two other genes hmp-1 and hmr-1 anchor contractile Actin filament bundles at the adherens junctions between hypodermal cells and transmit the force of bundle contraction into cell shape change. Their gene products localize to hypodermal adherens junctions in embryos and they mediate specific aspects of morphogenetic cell shape change and cytoskeletal organization. Mutations in hmp-2 cause defects in hypodermal enclosure and body elongation in *C. elegans*.

### REFERENCES

1. Miller, J.R. and Moon, R.T. 1996. Signal transduction through  $\beta$ -catenin and the specification of cell fate during embryogenesis. *Genes Dev.* 10: 2527-2539.
2. Cadigan, K.M. and Nusse, R. 1997. Wnt signaling: a common theme in animal development. *Genes Dev.* 11: 3286-3305.
3. Costa, M., Raich, W., Agbunag, C., Leung, B., Hardin, J., and Priess, J.R. 1998. A putative catenin-cadherin system mediates morphogenesis of the *Caenorhabditis elegans* embryo. *J. Cell Biol.* 141: 297-308.
4. Ruvkun, G. and Hobert, O. 1998. The taxonomy of developmental control in *Caenorhabditis elegans*. *Science* 282: 2033-2041.
5. Korswagen, H.C., Herman, M.A., and Clevers, H.C. 2000. Distinct  $\beta$ -catenins mediate adhesion and signaling functions in *C. elegans*. *Nature* 406: 527-532.
6. Hoier, E.F., Mohler, W.A., Kim, S.K., and Hajnal, A. 2000. The *Caenorhabditis elegans* APC-related gene apr-1 is required for epithelial cell migration and Hox gene expression. *Genes Dev.* 14: 874-886.

### SOURCE

HMP-2 (cT-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HMP-2 of *Caenorhabditis elegans* origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-15520 P, (100  $\mu$ g 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

HMP-2 (cT-20) is recommended for detection of HMP-2 of *Caenorhabditis elegans* 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).

### 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.