SANTA CRUZ BIOTECHNOLOGY, INC.

period (H-3): sc-398462

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. Period, also known as per, Clock-6 or Clock, is a DNA-binding transcription factor that regulates circadian rhythm.

REFERENCES

1. Jackson, F.R., et al. 1986. Product of per locus of *Drosophila* shares homology with proteoglycans. Nature 320: 185-188.
2. Reddy, P., et al. 1986. The period clock locus of *D. melanogaster* codes for a proteoglycan. Cell 46: 53-61.
3. Citri, Y., et al. 1987. A family of unusually spliced biologically active transcripts encoded by a *Drosophila* Clock gene. Nature 326: 42-47.
4. Adams, M.D., et al. 2000. The genome sequence of *Drosophila melanogaster*. Science 287: 2185-2195.
5. LocusLink Report (LocusID: 31251). http://www.ncbi.nlm.nih.gov/LocusLink/

SOURCE

period (H-3) is a mouse monoclonal antibody raised against amino acids 925-1224 mapping at the C-terminus of period of *Drosophila melanogaster* origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

period (H-3) is available conjugated to agarose (sc-398462 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398462 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398462 PE), fluorescein (sc-398462 FITC), Alexa Fluor® 488 (sc-398462 AF488), Alexa Fluor® 546 (sc-398462 AF546), Alexa Fluor® 594 (sc-398462 AF594) or Alexa Fluor® 647 (sc-398462 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398462 AF680) or Alexa Fluor® 790 (sc-398462 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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

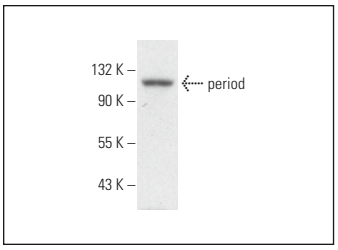
period (H-3) is recommended for detection of all period isoforms of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Positive Controls: *Drosophila melanogaster* whole cell lysate.

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



period (H-3): sc-398462. Western blot analysis of period expression in *Drosophila melanogaster* whole cell lysate.

SELECT PRODUCT CITATIONS

1. Ohe, Y., et al. 2025. Photoperiodic plasticity of pigment-dispersing factor immunoreactive fibers projecting toward prothoracicotropic hormone neurons in flesh fly *Sarcophaga similis* larvae. J. Comp. Physiol. A Neuroethol. Sens. Neural Behav. Physiol. E-published.

PROTOCOLS

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