SANTA CRUZ BIOTECHNOLOGY, INC.

Jun (G-7): sc-398615

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 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. Many of the genes expressed in *Drosophila* are structurally and functionally similar across species, as are the pathways involved in transducing intracellular signaling. Among these proteins, Jun is a transcription factor that participates in signaling pathways related to mammalian Ras, Raf, ERK cascades. Like members of the mammalian AP-1 class of transcription regulators, *Drosophila* Jun contains a DNA-binding domain consisting of a leucine zipper and an adjacent basic region.

REFERENCES

1. Perkins, K.K., et al. 1990. The *Drosophila* Fos-related AP-1 protein is a developmentally regulated transcription factor. Genes Dev. 4: 822-834.
2. Kockel, L., et al. 1997. Jun in *Drosophila* development: redundant and nonredundant functions and regulation by two MAPK signal transduction pathways. Genes Dev. 11: 1748-1758.
3. Adams, M.D., et al. 2000. The genome sequence of *Drosophila melanogaster.* Science 287: 2185-2195.
4. LocusLink Report (LocusID: 36057). http://www.ncbi.nlm.nih.gov/LocusLink/

SOURCE

Jun (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 111-154 within an internal region of Jun 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.

Jun (G-7) is available conjugated to agarose (sc-398615 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398615 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398615 PE), fluorescein (sc-398615 FITC), Alexa Fluor® 488 (sc-398615 AF488), Alexa Fluor® 546 (sc-398615 AF546), Alexa Fluor® 594 (sc-398615 AF594) or Alexa Fluor® 647 (sc-398615 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398615 AF680) or Alexa Fluor® 790 (sc-398615 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398615 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Jun (G-7) is recommended for detection of Jun 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).

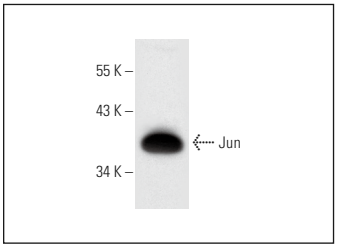
Molecular Weight of Jun: 36 kDa.

Positive Controls: Schneider's *Drosophila* Line 2 whole cell lysate: sc-364794.

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



Jun (G-7): sc-398615. Western blot analysis of Jun expression in Schneider's *Drosophila* Line 2 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Bruscoli, S., et al. 2018. Glucocorticoid-induced leucine zipper inhibits interferon-γ production in B cells and suppresses colitis in mice. Front. Immunol. 9: 1720.

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.

PROTOCOLS

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