

Kruppel (dC-16)-R: sc-15789-R

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. Among these proteins, Kruppel (Kr) is a DNA-binding, zinc finger-type transcriptional regulator that is required for normal thorax and abdominal development during late embryonic stages. As a monomer, Kr is a transcriptional activator. At higher stoichiometric levels, Kr may form a homodimer which represses transcription at the same target sequences as the monomer.

REFERENCES

1. Licht, J.D., Gossel, M.J., Figge, J. and Hansen, U.M. 1990. *Drosophila* Kruppel protein is a transcriptional repressor. *Nature* 346: 76-79.
2. Sauer, F. and Jackle, H. 1991. Concentration-dependent transcriptional activation or repression by Kruppel from a single binding site. *Nature* 353: 563-566.
3. Sauer, F., Fondell, J.D., Ohkuma, Y., Roeder, R.G. and Jackle, H. 1995. Control of transcription by Kruppel through interactions with TFIIIB and TFIIIE β . *Nature* 375: 162-164.
4. Hartmann, C., Landgraf, M., Bate, M. and Jackle, H. 1997. Kruppel target gene knockout participates in the proper innervation of a specific set of *Drosophila* larval muscles. *EMBO J.* 16: 5299-5309.
5. 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.
6. The Interactive Fly. <http://www.sdbonline.org/fly/aimain/1aahome.htm>. <http://www.sdbonline.org/fly/segment/Kruppel1.htm>

SOURCE

Kruppel (dC-16)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of Kruppel 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.

Blocking peptide available for competition studies, sc-15789 P, (100 μ 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.

APPLICATIONS

Kruppel (dC-16)-R is recommended for detection of Kruppel of *Drosophila melanogaster* 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.

RESEARCH USE

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

PROTOCOLS

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