



deformed (d-129): sc-98593

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. The *Drosophila* protein deformed, known as Dfd, is a homeodomain containing transcription factor that is required for normal *Drosophila* head formation, particularly in establishing the form of the maxillary and mandibular segments.

REFERENCES

1. 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.
2. Frazee, R.W., Taylor, J.A., and Tullius, T.D. 2002. Interchange of DNA-binding modes in the deformed and ultrabithorax homeodomains: a structural role for the N-terminal arm. *J. Mol. Biol.* 323: 665-683.
3. Lohmann, I., McGinnis, N., Bodmer, M., and McGinnis, W. 2002. The *Drosophila* Hox gene deformed sculpts head morphology via direct regulation of the apoptosis activator reaper. *Cell* 110: 457-466.
4. Rogers, B.T., Peterson, M.D., and Kaufman, T.C. 2002. The development and evolution of insect mouthparts as revealed by the expression patterns of gnathocephalic genes. *Evol. Dev.* 4: 96-110.
5. The Interactive Fly. <http://www.sdbonline.org/fly/aimain/1aahome.htm>.
<http://www.sdbonline.org/fly/neural/deformed.htm>

SOURCE

deformed (d-129) is a rabbit polyclonal antibody raised against amino acids 217-344 mapping within an internal region of deformed of *Drosophila melanogaster* origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98593 X, 200 µg/0.1 ml.

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

deformed (d-129) is recommended for detection of deformed of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:200, 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).

deformed (d-129) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

PROTOCOLS

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