



UBX (dN-16): sc-26183

BACKGROUND

In *Drosophila melanogaster*, segment identity is determined by specific expression of homeotic genes (Hox). The Hox expression pattern is first initiated by gap and pair-rule genes and then maintained by genes of the Polycomb-group (Pc-G) and the trithorax-group (trx-G). Ultrabithorax (UBX), a homeodomain containing transcription factor, is essential for the proper patterning of the posterior thorax and anterior abdomen in *Drosophila*. UBX is the sole Hox gene responsible for the differential development of the forewing and haltere in *Drosophila*. Mutations in UBX result in the transformation of the third thoracic (the haltere and third leg) segment into the second thoracic (wing and second leg) segment.

REFERENCES

- Bennett, R.L., Brown, S.J., and Denell, R.E. 1999. Molecular and genetic analysis of the *Tribolium* ultrabithorax ortholog, Ultrathorax. *Dev. Genes Evol.* 209: 608-619.
- Roch, F., and Akam, M. 2000. Ultrabithorax and the control of cell morphology in *Drosophila* halteres. *Development* 127: 97-107.
- Lopez, A., Higuete, D., Rosset, R., Deutsch, J., and Peronnet, F. 2001. Corto genetically interacts with Pc-G and trx-G genes and maintains the anterior boundary of ultrabithorax expression in *Drosophila* larvae. *Mol. Genet. Genomics.* 266: 572-583.
- Rivlin, P.K., Gong, A., Schneiderman, A.M., and Booker, R. 2001. The role of ultrabithorax in the patterning of adult thoracic muscles in *Drosophila melanogaster*. *Dev. Genes Evol.* 211: 55-66.
- Frazer, 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.

SOURCE

UBX (dN-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of UBX 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.

Blocking peptide available for competition studies, sc-26183 P, (100 µg 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.

PROTOCOLS

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

APPLICATIONS

UBX (dN-16) is recommended for detection of UBX 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.