

HTH (dN-19): sc-26186

BACKGROUND

Homeodomain-containing Hox proteins regulate segmental identity in *Drosophila* in concert with two partners known as extradenticle (EXD) and homothorax (HTH). EXD and HTH are DNA-binding, homeodomain proteins. Vertebrate orthologs of EXD and HTH, known as Pbx and Meis (named for a myeloid ecotropic leukemia virus integration site), respectively, are encoded by multigene families and are present in multimeric complexes together with vertebrate homeotic (Hox) proteins. In *Drosophila*, differences between segments, such as the presence or absence of appendages, or the identity of structures along the anterior-posterior axis, are controlled by Hox transcription factors. Co-factor homeodomain proteins such as HTH and EXD can increase the DNA-binding specificity of Hox protein transcription factors. HTH binds to the homeotic co-factor extradenticle (EXD) and translocates it to the nucleus. The co-expression of EXD and HTH with distal-less is required to establish antenna fate.

REFERENCES

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- Galant, R., Walsh, C.M. and Carroll, S.B. 2002. Hox repression of a target gene: extradenticle-independent, additive action through multiple monomer binding sites. *Development* 129: 3115-3126.
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- Gebelein, B., Culi, J., Ryoo, H.D., Zhang, W. and Mann, R.S. 2002. Specificity of distal-less repression and limb primordia development by abdominal Hox proteins. *Dev. Cell.* 3: 487-498.

SOURCE

HTH (dN-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HTH of *Drosophila melanogaster* origin.

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.

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-26186 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

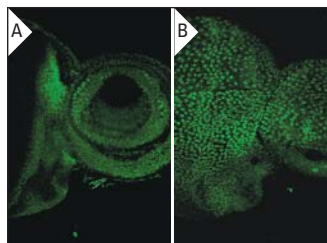
APPLICATIONS

HTH (dN-19) is recommended for detection of HTH 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.

DATA



Homothorax (N-19): sc-26186. Immunofluorescent staining of the disc proper (A) and peripodial membrane (B) layers of the *Drosophila* eye-antenna disc at late L3 stage. Kindly provided by Tianyi Zhang, Pignoni Lab, Massachusetts Eye and Ear Infirmary.

RESEARCH USE

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