SANTA CRUZ BIOTECHNOLOGY, INC.

EGL-17 (cN-15): sc-15528

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Sex myoblast migration in *C. elegans* hermaphrodites is controlled by mulitple guidance mechanisms, requiring the genes egl-15 and egl-17. EGL-17 is a member of the fibroblast growth factor (FGF) family that shares homology with other FGF members. ELG-17 mutants have sex myoblasts migration defect, whereas mutations in EGL-15 result in larval arrest, scrawny body morphology and suppression of mutations in CLR-1. This suggests that EGL-17 acts as a ligand of EGL-15 during sex myoblast migration and another ligand activates EGL-15 for its other functions. EGL-17, which defines the gonad-dependent attractant, is expressed in the gonadal cells required to attract the sex myoblasts to their final positions. EGL-17 that is expressed in the primary vulval cell correlates with the precise positioning of the sex myoblasts and helps to coordinate the development of a functional egg-laying system. Therefore, EGL-17 links vulval induction with proper sex myoblast migration. In addition, EGL-17 is expressed in the apicule socket cells and may be involved in spicule elongation.

REFERENCES

1. Stern, M.J. and Horvitz, H.R. 1991. A normaly attractive cell interaction is repulsive in two *C. elegans* mesodermal cell migration mutants. Development 113: 797-703.
2. Burdine, R.D., Chen, E.B., Kwok, S.F., and Stern, M.J. 1997. EGL-17 encodes an invertebrate fibroblast growth factor family member required specifically for sex myoblast migration in *Caenorhabditis elegans*. Proc. Natl. Acad. Sci. USA 94: 2433-2437.
3. Burdine, R.D., Branda, C.S., and Stern, M.J. 1998. EGL-17 (FGF) expression coordinates the attraction of the migrating sex myoblasts with vulval induction in *C. elegans*. Development 125: 1083-1093.
4. Blelloch, R., Newman, C., and Kimble, J. 1999. Control of cell migration during *Caenorhabditis elegans* development. Curr. Opin. Cell Biol. 11: 608-613.
5. Roubin, R., Naert, K., Popovici, C., Vatcher, G., Coulier, F., Thierry-Mieg, J., Pontarotti, P., Birnbaum, D., Baillie, D., and Thierry-Mieg, D. 1999. LET-756, a *C. elegans* FGF essential for worm development. Oncogene 18: 6741-6747.
6. Jiang, L.I. and Sternberg, P.W. 1999. Socket cells mediate spicule morphogenesis in *Caenorhabditis elegans* males. Dev. Biol. 211: 88-99.
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SOURCE

EGL-17 (cN-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of EGL-17 of *Caenorhabditis elegans* origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

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-15528 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

EGL-17 (cN-15) is recommended for detection of EGL-17 of *Caenorhabditis elegans* 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.