SANTA CRUZ BIOTECHNOLOGY, INC.

Ego-1 (cY-15): sc-12084

BACKGROUND

Cell proliferation and development are carefully controlled in *C. elegans*, with each cell following a nearly invariant pattern of differentiation. Vulval development in particular provides a useful model for studying how cell fate is determined. In addition to cell signaling pathways such as Notch and Ras pathways, the establishment of cell polarity and the asymmetric distribution of certain receptors are also critical for proper cell fate determination. Germ line mitosis depends on a somatic signal that is mediated by a Notch-type signaling pathway. Cell signaling requires a putative receptor in the germ line, encoded by the GLP-1 gene, and a putative signal from the DTC, encoded by the LAG-2 gene. The Ego-1 (enhancer of GLP-1) gene was originally identified on the basis of genetic interactions with the receptor in the Notch-type signaling pathway and was also shown to be required for oogenesis. Based on genetic experiments, GLP-1 appears to act upstream of Ego-1 and Ego-3. Ego-1 is also required for a robust response to RNA interference.

REFERENCES

1. Qiao, L., Lissemore, J.L., Shu, P., Smardon, A., Gelber, M.B. and Maine, E.M. 1995. Enhancers of GLP-1, a gene required for cell-signaling in *Caenorhabditis elegans*, define a set of genes required for germline development. Genetics 141: 551-569.
2. Sundaram, M. and Han, M. 1996. Control and integration of cell signaling pathways during *C. elegans* vulval development. Bioessays 18: 473-480.
3. Kornfeld, K. 1997. Vulval development in *Caenorhabditis elegans*. Trends Genet. 13: 55-61.
4. Sommer, R.J. and Sternberg, P.W. 1997. Evolution of nematode vulval fate patterning. Dev. Biol. 173: 396-407.
5. Smardon, A., Spoerke, J.M., Stacey, S.C., Klein, M.E., Mackin, N. and Maine, E.M. 2000. Ego-1 is related to RNA-directed RNA polymerase and functions in germ line development and RNA interference in *C. elegans*. Curr. Biol. 10: 169-178.

SOURCE

Ego-1 (cY-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Ego-1 of *C. elegans* 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-12084 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

Ego-1 (cY-15) is recommended for detection of Ego-1 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.