



LIT-1 (cC-15): sc-15527

BACKGROUND

In *C. elegans*, the Wnt/Wg signaling pathway regulates transcription factors containing high-mobility-group domains to determine cell fate between sister cells from anterior/posterior divisions. The *lit-1* gene plays an essential role in controlling the asymmetry of cell division during embryogenesis. *lit-1* mutants suggest that LIT-1 protein controls six consecutive binary switches, which cause one of the two equivalent cells produced at each cleavage to assume a posterior fate. LIT-1 is homologous to MAP kinase-related NEMO-like kinase (NLK) in mammalian cells. A β -catenin homolog, WRM-1, and LIT-1 form a kinase complex, which directly phosphorylates and downregulates the TCF/LEF-related protein, POP-1. *mom-4* encodes a MAP kinase kinase kinase-related protein to stimulate the WRM-1/LIT-1 dependent phosphorylation of POP-1, suggesting that anterior/posterior polarity signaling in *C. elegans* may involve a MAP kinase-like signaling mechanism.

REFERENCES

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5. Shin, T.H., Yasuda, J., Rocheleau, C.E., Lin, R., Soto, M., Bei, Y., Davis, R.J., and Mello, C.C. 1999. MOM-4, a MAP kinase kinase kinase-related protein, activates WRM-1/LIT-1 kinase to transduce anterior/posterior polarity signals in *C. elegans*. *Mol. Cell* 4: 275-280.
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SOURCE

LIT-1 (cC-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of LIT-1 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 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15527 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LIT-1 (cC-15) is recommended for detection of LIT-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 Blotting 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.