DAF-7 (cN-14): sc-9249



The Power to Question

BACKGROUND

A variety of growth factor signaling molecules have been shown to regulate $\mathcal{C}.$ elegans development, including members of the EGF, FGF and TGF β superfamilies. These factors bind to specific receptors and transduce extracellular signals to the nucleus. Receptor tyrosine kinase/Ras pathways also play a critical role in cell signaling and are responsible for proper vulval development. The DAF family proteins play a role in the control of dauer larva formation, a developmentally arrested, non-feeding dispersal stage normally formed in response to overcrowding and limited food. DAF-1, DAF-3, DAF-4 and DAF-7 are members of the TGF β superfamily. DAF-18 is the $\mathcal{C}.$ elegans homologue of PTEN and acts as a component of the Insulin-like signalling pathway.

REFERENCES

- Georgi, L.L., Albert, P.S. and Riddle, D.L. 1990. DAF-1, a C. elegans gene controlling dauer larva development, encodes a novel receptor protein kinase. Cell 61: 635-645.
- Carpenter, G. 1993. EGF: new tricks for an old growth factor. Curr. Opin. Cell Biol. 5: 261-264.
- Sternberg, P.W., Lesa, G., Lee, J., Katz, W.S., Yoon, C., Clandinin, T.R., Huang, L.S., Chamberlin, H.M. and Jongeward, G. 1995. LET-23-mediated signal transduction during *Caenorhabditis elegans* development. Mol. Reprod. Dev. 42: 523-528.
- 4. Kayne, P.S. and Sternberg, P.W. 1995. Ras pathways in *Caenorhabditis elegans*. Curr. Opin. Genet. Dev. 5: 38-43.
- Ren, P., Lim, C.S., Johnsen, R., Albert, P.S., Pilgrim, D. and Riddle, D.L. 1996. Control of *C. elegans* larval development by neuronal expression of a TGFβ homolog. Science 274: 1389-1391.
- 6. Krishna, S., Maduzia, L.L. and Padgett, R.W. 1999. Specificity of TGF β signaling is conferred by distinct type I receptors and their associated Smad proteins in *Caenorhabditis elegans*. Development 126: 251-260.
- Thatcher, J.D., Haun, C. and Okkema, P.G. 1999. The DAF-3 Smad binds DNA and represses gene expression in the *Caenorhabditis elegans* pharynx. Development 126: 97-107.
- Rouault, J.P., Kuwabara, P.E., Sinilnikova, O.M., Duret, L., Thierry-Mieg, D. and Billaud, M. 1999. Regulation of dauer larva development in *Caenorhabditis elegans* by DAF-18, a homologue of the tumour suppressor PTEN. Curr. Biol. 9: 329-332.

SOURCE

DAF-7 (cN-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DAF-7 of *Caenorhabditis 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-9249 P, ($100 \mu g$ peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DAF-7 (cN-14) is recommended for detection of DAF-7 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) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**