SANTA CRUZ BIOTECHNOLOGY, INC.

UNC-2 (cC-17): sc-12232

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

A variety of growth factor signaling molecules have been shown to regulate *C. elegans* development, including members of the EGF, FGF and TGF 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 activation of MAP kinase in olfactory neurons is dependent on the function of the nucleotide-gated channel TAX-2/TAX-4 and the voltage-activated calcium channel subunit, UNC-2. UNC-2 is a homolog of a voltage-sensitive calcium channel α-1 subunit. UNC-2 is required for adaptation to two neurotransmitters, dopamine and serotonin. Expression of UNC-2 occurs in neurons implicated in the control of egg laying, a behaviour regulated by serotonin. UNC-2 may be required in modulatory neurons to downregulate the response of the egg-laying muscles to serotonin.

REFERENCES

1. Carpenter, G. 1993. EGF: new tricks for an old growth factor. Curr. Opin. Cell. Biol. 5: 261-264.
2. Schafer, W.R. and Kenyon, C.J. 1995. A calcium-channel homologue required for adaptation to dopamine and serotonin in *Caenorhabditis elegans*. Nature 375: 73-78.
3. Sternberg, P.W., Lesa, G., Lee, J., Katz, W.S., Yoon, C., Clandinin, T.R., Huang, L.S., Chamberlin, H.M. and and Jongeward, G. 1995. LET-23-mediated signal transduction during *Caenorhabditis elegans* development. Mol. Reprod. Dev. 42: 523-528.
4. Schafer, W.R., Sanchez, B.M. and Kenyon, C.J. 1996. Genes affecting sensitivity to serotonin in *Caenorhabditis elegans*. Genetics 143: 1219-1230.
5. Hirotsu, T., Saeki, S., Yamamoto, M. and Iino, Y. 2000. The Ras-MAPK pathway is important for olfaction in *Caenorhabditis elegans*. Nature 404: 289-293.

SOURCE

UNC-2 (cC-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of UNC-2 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-12232 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.

RESEARCH USE

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

APPLICATIONS

UNC-2 (cC-17) is recommended for detection of UNC-2 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.