

## DAF-16 (cN-20): sc-9229

### BACKGROUND

Several proteins involved in regulating the aging process in *C. elegans* have been identified. DAF-2, DAF-16 and AGE-1 (also known as DAF-23) regulate lifespan via an Insulin-signaling pathway. In specific, decreases in DAF-2 signaling induce metabolic and developmental changes, as in mammalian metabolic control by the Insulin receptor. DAF-16 encodes a member of the hepatocyte nuclear factor 3 (HNF-3)/forkhead family of transcriptional regulators. In humans HNF-3 activity is antagonized by Insulin, causing the down regulation of developmental genes, raising the possibility that aspects of the DAF-16 regulatory system have been conserved. The gene AGE-1 encodes a homologue of mammalian phosphatidylinositol-3-OH kinase (PI(3)K) catalytic subunits and is required for non-dauer development and normal senescence. CLK-1, a homolog of the yeast COQ7/CAT5 protein, is thought to exert its effects on longevity via the synthesis of ubiquinone, an essential component of electron transport.

### REFERENCES

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3. Ewbank, J.J., Barnes, T.M., Lakowski, B., Lussier, M., Bussey, H. and Hekimi, S. 1997. Structural and functional conservation of the *Caenorhabditis elegans* timing gene *clk-1*. *Science* 275: 980-983.
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### SOURCE

DAF-16 (cN-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of DAF-16 of *C. 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-9229 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

DAF-16 (cN-20) is recommended for detection of DAF-16 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](http://www.scbt.com) or our catalog for detailed protocols and support products.