



cyclin A-type (aC-16): sc-12863

BACKGROUND

The cell cycle in *Arabidopsis thaliana* mediates organ morphogenesis, cell proliferation and differentiation, and these functions are restricted to the meristems. The cell cycle is controlled by cyclin-dependent kinases, which bind to positive regulators called cyclins. In particular, *Arabidopsis* B-type cyclin controls cell cycle progression by regulating gene expression late in the G₂ and M phases. Expression of cyclin Ds have been shown to increase in response to sucrose. Cdc2 and Cdc2B control cell cycle progression after forming a complex with cyclin. Prolifera and pelota are required for DNA replication and meiotic cell division, respectively.

REFERENCES

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9. Riou-Khamlichi, C., Menges, M., Healy, J.M., and Murray, J.A. 2000. Sugar control of the plant cell cycle: differential regulation of *Arabidopsis* D-type cyclin gene expression. *Mol. Cell. Biol.* 20: 4513-4521.

SOURCE

cyclin A-type (aC-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of cyclin A-type of *Arabidopsis thaliana* 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-12863 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cyclin A-type (aC-16) is recommended for detection of cyclin A-type of *Arabidopsis thaliana* 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.

SELECT PRODUCT CITATIONS

1. Saeki, K., et al. 2005. Proteomic analysis on insulin signaling in human hematopoietic cells: identification of CLIC1 and SRp20 as novel downstream effectors of insulin. *Am. J. Physiol. Endocrinol. Metab.* 289: E419-E428.

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.