

CdcA3 (K-14): sc-167447

BACKGROUND

Cell cycle events are regulated by the sequential activation and deactivation of cyclin dependent kinases (Cdks) and by the proteolysis of cyclins. The cell division control (Cdc) genes are required at various points in the cell cycle. CdcA3 (cell division cycle-associated protein 3), also known as TOME1 (trigger of mitotic entry protein 1) and GRCC8 (gene-rich cluster protein C8), is a 268 amino acid cytoplasmic protein that is required for entry into mitosis. By participating with E3 ligase complexes, CdcA3 is involved in ubiquitination and degradation of the mitosis-inhibitory kinase Wee 1, leading to the dephosphorylation of Cdc2 in the late G₂ phase. CdcA3 itself is targeted for destruction by anaphase promoting complex (APC) in the G₁ phase of the cell cycle, then allowing for Wee 1 accumulation during interphase.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CDCA3 (human) mapping to 12p13.31; Cdca3 (mouse) mapping to 6 F2.

SOURCE

CdcA3 (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CdcA3 of human 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-167447 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CdcA3 (K-14) is recommended for detection of CdcA3 of mouse, rat and human 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); non cross-reactive with other CdcA family members .

Suitable for use as control antibody for CdcA3 siRNA (h): sc-96127, CdcA3 siRNA (m): sc-142218, CdcA3 shRNA Plasmid (h): sc-96127-SH, CdcA3 shRNA Plasmid (m): sc-142218-SH, CdcA3 shRNA (h) Lentiviral Particles: sc-96127-V and CdcA3 shRNA (m) Lentiviral Particles: sc-142218-V.

Molecular Weight of CdcA3: 29 kDa.

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 or our catalog for detailed protocols and support products.