

CdcA3 (FL-268): sc-134625

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 Wee1 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 (FL-268) is a rabbit polyclonal antibody raised against amino acids 1-268 representing full length CdcA3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

CdcA3 (FL-268) is recommended for detection of CdcA3 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

CdcA3 (FL-268) is also recommended for detection of CdcA3 in additional species, including equine.

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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.