SANTA CRUZ BIOTECHNOLOGY, INC.

hCAP-D3 (E-13): sc-168054

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The condensin complex plays a role in the resolution and segregation of sister chromatids during mitosis and some aspects of mitotic chromosome assembly. Cdc2 phosphorylation of the complex leads to its activation and association with chromosome arms and condensation. Condensin complexes are heteropentamers comprised of two SMC (structural maintenance of chromosomes) subunits and three non-SMC subunits. The SMC family includes SMC1 (also known as SMC1α and SCMB), which associates with SMC3 (also known as hCAP and Bamacan), SMC2 (also known as hCAP-E), which associates with SMC4 (also known as hCAP-C), and SMC5, which associates with SMC6. hCAP-D3 (non-SMC condensin II complex subunit D3), also known as NCAPD3 or KIAA0056, is a 1498 amino acid nuclear protein that contains four HEAT repeats and is a member of the condensin-2 complex.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: NCAPD3 (human) mapping to 11q25; Ncapd3 (mouse) mapping to 9 A4.

SOURCE

hCAP-D3 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of hCAP-D3 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.

Blocking peptide available for competition studies, sc-168054 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

hCAP-D3 (E-13) is recommended for detection of hCAP-D3 of human origin, Ncapd3 of mouse origin and the corresponding rat homolog 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 hCAP-D2.

hCAP-D3 (E-13) is also recommended for detection of hCAP-D3 in additional species, including bovine.

Suitable for use as control antibody for hCAP-D3 siRNA (h): sc-96768, Ncapd3 siRNA (m): sc-149851, hCAP-D3 shRNA Plasmid (h): sc-96768-SH, Ncapd3 shRNA Plasmid (m): sc-149851-SH, hCAP-D3 shRNA (h) Lentiviral Particles: sc-96768-V and Ncapd3 shRNA (m) Lentiviral Particles: sc-149851-V.

Molecular Weight of hCAP-D3: 165 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or HeLa whole cell lysate: sc-2200.

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.

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.