SANTA CRUZ BIOTECHNOLOGY, INC.

hCAP-D2 (N-20): sc-49962

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 its 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. Non-SMC subunits help regulate the complex and include hCAP-D2, hCAP-H and hCAP-G. The C-terminus of hCAP-D2 interacts with Histones H1 and H3 through their histone tails. A loss of hCAP-D2 can lead to the disorganization of chromatid axes, misalignment of sister chromatids during metaphase and delayed entry into anaphase.

CHROMOSOMAL LOCATION

Genetic locus: NCAPD2 (human) mapping to 12p13.31; Ncapd2 (mouse) mapping to 6 F3.

SOURCE

hCAP-D2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of hCAP-D2 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-49962 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

hCAP-D2 (N-20) is recommended for detection of hCAP-D2 (Chromosome-associated protein D2) of mouse, rat and human 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).

hCAP-D2 (N-20) is also recommended for detection of hCAP-D2 (Chromosome-associated protein D2) in additional species, including equine, canine and bovine.

Suitable for use as control antibody for hCAP-D2 siRNA (h): sc-60774, hCAP-D2 siRNA (m): sc-60775, hCAP-D2 shRNA Plasmid (h): sc-60774-SH, hCAP-D2 shRNA Plasmid (m): sc-60775-SH, hCAP-D2 shRNA (h) Lentiviral Particles: sc-60774-V and hCAP-D2 shRNA (m) Lentiviral Particles: sc-60775-V.

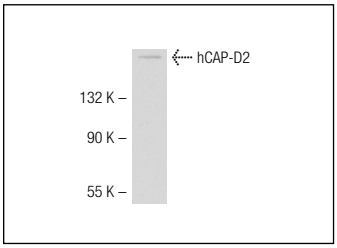
Molecular Weight of hCAP-D2: 155 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



hCAP-D2 (N-20): sc-49962. Western blot analysis of hCAP-D2 expression in HeLa whole cell lysate.

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.