SANTA CRUZ BIOTECHNOLOGY, INC.

AHDC1 (C-20): sc-169933

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

AHDC1 (AT hook, DNA binding motif, containing 1) is a 1,603 amino acid protein that participates in DNA binding. Containing two AT hook DNA-binding domains, AHDC1 is phosphorylated upon DNA damage, likely by Atm or ATR. AHDC1 is encoded by a gene that maps to human chromosome 1. Consisting of 3,000 genes, chromosome 1 is the largest human chromosome, spanning about 260 million base pairs and making up 8% of the human genome. Numerous diseases are linked to chromosome 1, notably the rare aging disease Hutchinson-Gilford progeria, which is associated with Lamin A. When defective, Lamin A can accumulate in nucleus, causing characteristic nuclear blebs. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinson's disease, Gaucher disease and Usher syndrome are also associated with chromosome 1. Aberrations in chromosome 1 exist in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. J. Exp. Med. 172: 263-272.
2. Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. Am. J. Hum. Genet. 69: 428-433
3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
4. Loor, J.J., et al. 2005. Temporal gene expression profiling of liver from periparturient dairy cows reveals complex adaptive mechanisms in hepatic function. Physiol. Genomics 23: 217-226.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
6. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. Anticancer Res. 26: 953-959.

CHROMOSOMAL LOCATION

Genetic locus: AHDC1 (human) mapping to 1p36.11; Ahdc1 (mouse) mapping to 4 D2.3.

SOURCE

AHDC1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of AHDC1 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-169933 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-169933 X, 200 µg/0.1 ml.

APPLICATIONS

AHDC1 (C-20) is recommended for detection of AHDC1 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).

AHDC1 (C-20) is also recommended for detection of AHDC1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for AHDC1 siRNA (h): sc-78730, AHDC1 siRNA (m): sc-140915, AHDC1 shRNA Plasmid (h): sc-78730-SH, AHDC1 shRNA Plasmid (m): sc-140915-SH, AHDC1 shRNA (h) Lentiviral Particles: sc-78730-V and AHDC1 shRNA (m) Lentiviral Particles: sc-140915-V.

AHDC1 (C-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

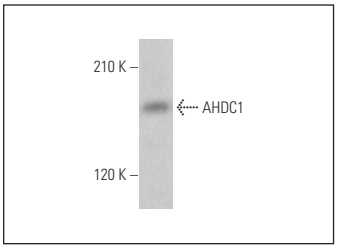
Molecular Weight of AHDC1: 168 kDa.

Positive Controls: rat brain extract: sc-2392.

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



AHDC1 (C-20): sc-169933. Western blot analysis of AHDC1 expression in rat brain tissue extract.

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.