SANTA CRUZ BIOTECHNOLOGY, INC.

CDP (C-20): sc-6327

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CDP (for CCAAT displacement protein) was identified as a repressor for transcription of developmentally regulated genes. It is a homeodomain protein that appears to compete with transcriptional activating proteins for binding to the promoter regions of various genes. CDP contains three cut repeats which function as DNA binding domains. It has been demonstrated that cut repeat domains have the capacity to bind to DNA in conjunction with or independently of homeodomain DNA binding. CDP has been shown to be the DNA-binding subunit of the HiNF-D complex, which contains cyclin A, Cdc2 and an Rb-related protein in addition to CDP. Histone expression is required for the transition to S phase in the cell cycle. The HiNF-D complex regulates the transcription of Histone H4, H3 and H1 genes, allowing cells to progress from G_1 to S phase.

CHROMOSOMAL LOCATION

Genetic locus: CUX1 (human) mapping to 7q22.1; Cux1 (mouse) mapping to 5 G2.

SOURCE

CDP (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CDP of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-6327 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-6327 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

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

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

Suitable for use as control antibody for CDP siRNA (h): sc-35051, CDP siRNA (m): sc-35052, CDP shRNA Plasmid (h): sc-35051-SH, CDP shRNA Plasmid (m): sc-35052-SH, CDP shRNA (h) Lentiviral Particles: sc-35051-V and CDP shRNA (m) Lentiviral Particles: sc-35052-V.

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

Molecular Weight of CDP: 180 kDa.

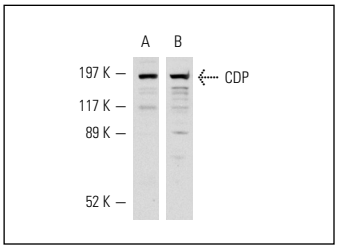
STORAGE

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

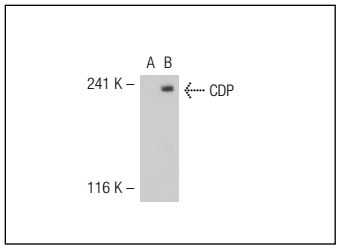
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



CDP (C-20): sc-6327. Western blot analysis of CDP expression in HeLa (**A**) and NIH/3T3 (**B**) nuclear extracts.



CDP (C-20): sc-6327. Western blot analysis of CDP expression in non-transfected: sc-117752 (**A**) and human CDP transfected: sc-117216 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tanabe, O., et al. 2002. An embryonic/fetal β type globin gene repressor contains a nuclear receptor TR2/TR4 heterodimer. EMBO J. 21: 3434-3442.
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3. Sun, Y.M., et al. 2008. Broad profiling of DNA-binding transcription factor activities improves regulatory network construction in adult mouse tissues. J. Proteome Res. 7: 4455-4464.
4. Sharma, M., et al. 2009. The homeodomain protein Cux1 interacts with Grg4 to repress $p27^{Kip1}$ expression during kidney development. Gene 439: 87-94.
5. Xu, H., et al. 2010. Liver-enriched transcription factors regulate microRNA-122 that targets CUTL1 during liver development. Hepatology 52: 1431-1442.
6. Sun, Y., et al. 2011. PCR DNA-array profiling of DNA-binding transcription factor activities in adult mouse tissues. Methods Mol. Biol. 687: 319-331.
7. Stratigopoulos, G., et al. 2011. Cut-like homeobox 1 (CUX1) regulates expression of the fat mass and obesity-associated and retinitis pigmentosa GTPase regulator-interacting protein-1-like (RPGRIP1L) genes and coordinates leptin receptor signaling. J. Biol. Chem. 286: 2155-2170.
8. Mairet-Coello, G., et al. 2012. $p57^{KIP2}$ regulates radial glia and intermediate precursor cell cycle dynamics and lower layer neurogenesis in developing cerebral cortex. Development 139: 475-487.