



CDP (SS9): sc-101003

BACKGROUND

CDP (for CCAAT displacement protein) has been 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 G₁/S phase.

REFERENCES

- Stein, G.S., et al, eds. 1984. Histone Genes. New York: Wiley.
- Neufeld, E.J., et al. 1992. Human CCAAT displacement protein is homologous to the *Drosophila* homeoprotein, CUT. Nat. Genet. 1: 50-55.
- Valarche, I., et al. 1993. The mouse homeodomain protein Phox2 regulates NCAM promoter activity in concert with Cux/CDP and is a putative determinant of neurotransmitter phenotype. Development 119: 881-896.
- Harada, R., et al. 1994. Conserved CUT repeats in the human CUT homeodomain protein function as DNA binding domains. J. Biol. Chem. 269: 2062-2067.
- Luo, W., et al. 1996. CCAAT displacement protein competes with multiple transcriptional activators for binding to four sites in the proximal gp91-phox promoter. J. Biol. Chem. 271: 18203-18210.
- Van Wijnen, A.J., et al. 1996. CDP/CUT is the DNA-binding subunit of histone gene transcription factor HiNF-D: a mechanism for gene regulation at the G₁/S phase cell cycle transition point independent of transcription factor E2F. Proc. Natl. Acad. Sci. USA 93: 11516-11521.
- Seto, H., et al. 2006. Antagonistic regulation of the *Drosophila* PCNA gene promoter by DREF and CUT. Genes Cells 11: 499-512.
- Maitra, U., et al. 2006. Differentiation-induced cleavage of CUT11/CDP generates a novel dominant-negative isoform that regulates mammary gene expression. Mol. Cell. Biol. 26: 7466-7478.

CHROMOSOMAL LOCATION

Genetic locus: CUX1 (human) mapping to 7q22.1.

SOURCE

CDP (SS9) is a mouse monoclonal antibody raised against recombinant CDP of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CDP (SS9) is recommended for detection of CDP of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

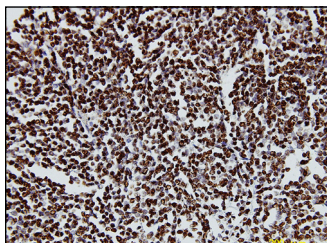
Suitable for use as control antibody for CDP siRNA (h): sc-35051, CDP shRNA Plasmid (h): sc-35051-SH and CDP shRNA (h) Lentiviral Particles: sc-35051-V.

Molecular Weight of CDP: 180 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 2) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



CDP (SS9): sc-101003. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human malignant lymphoma, diffuse large B-cell tissue showing cytoplasmic localization.

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 for detailed protocols and support products.