

Cdc5L (2136C1a): sc-81220

BACKGROUND

Cdc5L (cell division cycle 5-like protein, pombe Cdc5-related protein) is a DNA-binding protein encoded by the human gene CDC5L. Cdc5L contains two HTH Myb-type DNA-binding domains and may shuttle between cytoplasm and nucleus. It is involved in cell cycle control and may act as a transcription activator. Cdc5L is a spliceosomal protein that is highly conserved across species. It belongs to the group of proteins that comprise the core of spliceosomal complexes and are essential for pre-mRNA splicing. Cdc5L is involved in the second catalytic step of pre-mRNA splicing, which involves cleavage at the 3' splice site and the ligation of the exons. This process releases the intact intron lariat. A chromosomal aberration involving Cdc5L is found in multicystic renal dysplasia. This aberration is caused by a translocation (t 6;19,p21;q13.1) with USF-2.

REFERENCES

- Hirayama, T. and Shinozaki, K. 1996. A Cdc5⁺ homolog of a higher plant, *Arabidopsis thaliana*. Proc. Natl. Acad. Sci. USA 93: 13371-13376.
- Bernstein, H.S. and Coughlin, S.R. 1997. Pombe Cdc5-related protein. A putative human transcription factor implicated in mitogen-activated signaling. J. Biol. Chem. 272: 5833-5837.

CHROMOSOMAL LOCATION

Genetic locus: CDC5L (human) mapping to 6p21.1; Cdc5l (mouse) mapping to 17 B3.

SOURCE

Cdc5L (2136C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the N-terminus of Cdc5L of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

APPLICATIONS

Cdc5L (2136C1a) is recommended for detection of Cdc5L 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 flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for Cdc5L siRNA (h): sc-62088, Cdc5L siRNA (m): sc-62089, Cdc5L shRNA Plasmid (h): sc-62088-SH, Cdc5L shRNA Plasmid (m): sc-62089-SH, Cdc5L shRNA (h) Lentiviral Particles: sc-62088-V and Cdc5L shRNA (m) Lentiviral Particles: sc-62089-V.

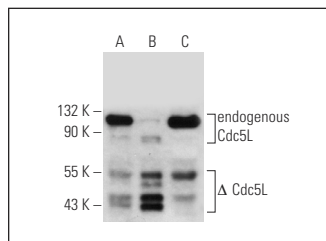
Molecular Weight of Cdc5L: 92 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Cdc5L (h2): 293T Lysate: sc-173633 or Cdc5L (m2): 293T Lysate: sc-119136.

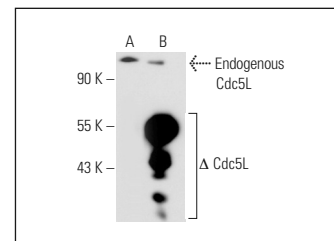
STORAGE

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

DATA



Cdc5L (2136C1a): sc-81220. Western blot analysis of Cdc5L expression in non-transfected 293T: sc-117752 (A), truncated human Cdc5L transfected 293T: sc-173633 (B) and HeLa (C) whole cell lysates.



Cdc5L (2136C1a): sc-81220. Western blot analysis of Cdc5L expression in non-transfected: sc-117752 (A) and truncated mouse Cdc5L transfected: sc-119136 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Shen, W., et al. 2010. Female infertility in PDE3A^{-/-} mice: polo-like kinase 1 (Plk1) may be a target of protein kinase A (PKA) and involved in meiotic arrest of oocytes from PDE3A^{-/-} mice. Cell Cycle 9: 4720-4734.
- David, C.J., et al. 2011. The RNA polymerase II C-terminal domain promotes splicing activation through recruitment of a U2AF65-Prp19 complex. Genes Dev. 25: 972-983.
- Samson, A.L., et al. 2016. Physicochemical properties that control protein aggregation also determine whether a protein is retained or released from necrotic cells. Open Biol. 6: 160098.
- Gu, S., et al. 2017. Proteomic profiling of isogenic primary and metastatic medulloblastoma cell lines reveals differential expression of key metastatic factors. J. Proteomics 160: 55-63.
- Munschauer, M., et al. 2018. The NORAD lncRNA assembles a topoisomerase complex critical for genome stability. Nature 561: 132-136.
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- Kuhny, M., et al. 2020. Disease-associated CTNBL1 mutation impairs somatic hypermutation by decreasing nuclear AID. J. Clin. Invest. E-published.

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.