SANTA CRUZ BIOTECHNOLOGY, INC.

# Cdc5L (D-11): sc-398280


The Power to Question

## 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 is a member of a protein group 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 (t6;19,p21;q13.1) with USF-2.

## REFERENCES


1. Hirayama, T. and Shinozaki, K. 1996. A cdc5+ homolog of a higher plant, *Arabidopsis thaliana*. Proc. Natl. Acad. Sci. USA 93: 13371-13376.
2. 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.
3. Groenen, P.M., et al. 1998. Rearrangement of the human CDC5L gene by a t(6;19)(p21;q13.1) in a patient with multicystic renal dysplasia. Genomics 49: 218-229.
4. Ajuh, P., et al. 2000. Functional analysis of the human CDC5L complex and identification of its components by mass spectrometry. EMBO J. 19: 6569-6581.
5. Ajuh, P., et al. 2001. A direct interaction between the carboxyl-terminal region of Cdc5L and the WD40 domain of PLRG1 is essential for pre-mRNA splicing. J. Biol. Chem. 276: 42370-42381.


## CHROMOSOMAL LOCATION

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

## SOURCE

Cdc5L (D-11) is a mouse monoclonal antibody raised against amino acids 503-802 mapping at the C-terminus of Cdc5L of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cdc5L (D-11) is available conjugated to agarose (sc-398280 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398280 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398280 PE), fluorescein (sc-398280 FITC), Alexa Fluor® 488 (sc-398280 AF488), Alexa Fluor® 546 (sc-398280 AF546), Alexa Fluor® 594 (sc-398280 AF594) or Alexa Fluor® 647 (sc-398280 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398280 AF680) or Alexa Fluor® 790 (sc-398280 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## APPLICATIONS

Cdc5L (D-11) is recommended for detection of Cdc5L of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

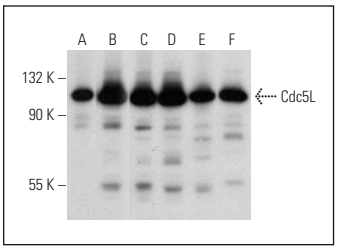
Molecular Weight of Cdc5L: 92 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, HeLa whole cell lysate: sc-2200 or Neuro-2A whole cell lysate: sc-364185.

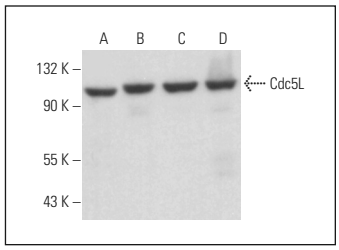
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 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.

## DATA




Cdc5L (D-11): sc-398280. Western blot analysis of Cdc5L expression in 293T (**A**), U-251-MG (**B**), U266 (**C**) and U-87 MG (**D**) whole cell lysates and mouse brain (**E**) and human adrenal gland (**F**) tissue extracts.




Cdc5L (D-11): sc-398280. Western blot analysis of Cdc5L expression in HeLa (**A**), Neuro-2A (**B**), TK-1 (**C**) and C6 (**D**) whole cell lysates.

## SELECT PRODUCT CITATIONS


1. Klimesova, K., et al. 2021. TSSC4 is a component of U5 snRNP that promotes tri-snRNP formation. Nat. Commun. 12: 3646.


## 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.