

## CCNJL (B-1): sc-376075



The Power to Question

## BACKGROUND

Cyclin J belongs to the cyclin family and contains one cyclin N-terminal domain. A cyclin forms a complex with its partner cyclin-dependent kinase (Cdk), which activates the protein kinase function of the Cdk. Cyclins are so named because their concentration varies in a cyclical fashion during the cell cycle. They are produced or degraded as needed in order to drive the cell through the different stages of the cell cycle. When its concentrations in the cell are low, the cyclin detaches from the Cdk, inhibiting the activity of the enzyme, probably by causing a protein chain to block the enzymatic site. Cyclin J-associated kinase activity is required for the early embryonic division cycles. CCNJL (cyclin-J-like protein) is a 435 amino acid protein that contains one cyclin N-terminal domain and belongs to the cyclin J subfamily. There are two isoforms of CCNJL that are produced as a result of alternative splicing events.

## REFERENCES

1. Bai, C., et al. 1994. Human cyclin F. *EMBO J.* 13: 6087-6098.
2. Kong, M., et al. 2000. Cyclin F regulates the nuclear localization of cyclin B1 through a cyclin-cyclin interaction. *EMBO J.* 19: 1378-1388.
3. Kolonin, M.G. 2000. A role for cyclin J in the rapid nuclear division cycles of early *Drosophila* embryogenesis. *Dev. Biol.* 227: 661-672.
4. Ota, T., et al. 2004. Complete sequencing and characterization of 21,243 full-length human cDNAs. *Nat. Genet.* 36: 40-45.
5. Fung, T.K. and Poon, R.Y. 2005. A roller coaster ride with the mitotic cyclins. *Semin. Cell Dev. Biol.* 16: 335-342.

## CHROMOSOMAL LOCATION

Genetic locus: CCNJL (human) mapping to 5q33.3; Ccnjl (mouse) mapping to 11 B1.1.

## SOURCE

CCNJL (B-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 19-47 near the N-terminus of CCNJL of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CCNJL (B-1) is available conjugated to agarose (sc-376075 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376075 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376075 PE), fluorescein (sc-376075 FITC), Alexa Fluor® 488 (sc-376075 AF488), Alexa Fluor® 546 (sc-376075 AF546), Alexa Fluor® 594 (sc-376075 AF594) or Alexa Fluor® 647 (sc-376075 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376075 AF680) or Alexa Fluor® 790 (sc-376075 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376075 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

CCNJL (B-1) is recommended for detection of CCNJL 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), 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 CCNJL siRNA (h): sc-91827, CCNJL siRNA (m): sc-142166, CCNJL shRNA Plasmid (h): sc-91827-SH, CCNJL shRNA Plasmid (m): sc-142166-SH, CCNJL shRNA (h) Lentiviral Particles: sc-91827-V and CCNJL shRNA (m) Lentiviral Particles: sc-142166-V.

Molecular Weight of CCNJL: 48 kDa.

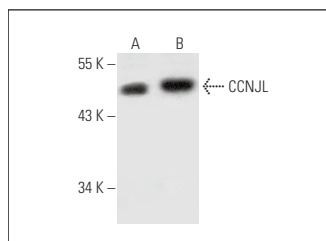
Positive Controls: HL-60 whole cell lysate: sc-2209, HEK293 whole cell lysate: sc-45136 or K-562 whole cell lysate: sc-2203.

## RECOMMENDED SUPPORT REAGENTS

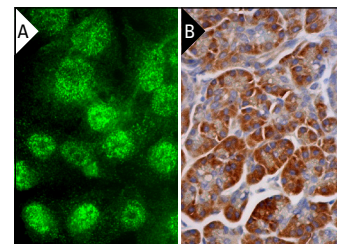
To ensure optimal results, the following support reagents are recommended:

- 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.
- 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



CCNJL (B-1): sc-376075. Western blot analysis of CCNJL expression in HEK293 (A) and K-562 (B) whole cell lysates.



CCNJL (B-1): sc-376075. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear and cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of glandular cells (B).

## 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.