

cyclin L2 (L-20): sc-33427

BACKGROUND

Cell proliferation is controlled at specific stages of the cell cycle by distinct protein kinase complexes. These complexes consist of a catalytic subunit associating with a specific regulatory subunit to form the active kinase. The cyclins, which include cyclin A, B, C, D, E, F, G, H, I, K, L, T and their related proteins, including Dbf4, comprise the regulatory subunits of these kinase complexes. The controlled activation of the kinase complexes at various intervals of the cell cycle is regulated by the availability of the cyclins to the catalytic subunit. Unlike the catalytic subunit, which is expressed continually, the expression and stability of the regulatory subunit fluctuates depending on the stage of the cell cycle and, thereby, regulates the kinase activity. cyclin L2 is a nuclear protein that is ubiquitously expressed but detected in highest levels in liver, pancreas, heart and ovary. It is important in cell apoptosis by regulating the expression on critical apoptotic factors. cyclin L2 plays a role in the mRNA splicing process regulation.

REFERENCES

1. Dickinson, L.A., et al. 2002. Cyclin L is an RS domain protein involved in pre-mRNA splicing. *J. Biol. Chem.* 277: 25465-25473.
2. Redon, R., et al. 2002. Amplicon mapping and transcriptional analysis pinpoint cyclin L as a candidate oncogene in head and neck cancer. *Cancer Res.* 62: 6211-6217.
3. de Graaf, K., et al. 2004. Characterization of cyclin L2, a novel cyclin with an arginine/serine-rich domain: phosphorylation by DYRK1A and colocalization with splicing factors. *J. Biol. Chem.* 279: 4612-4624.
4. Naaz, A., et al. 2004. Loss of cyclin-dependent kinase inhibitors produces adipocyte hyperplasia and obesity. *FASEB J.* 18: 1925-1927.
5. Yang, L., et al. 2004. Cyclin L2, a novel RNA polymerase II-associated cyclin, is involved in pre-mRNA splicing and induces apoptosis of human hepatocellular carcinoma cells. *J. Biol. Chem.* 279: 11639-11648.
6. Sticht, C., et al. 2005. Amplification of Cyclin L1 is associated with lymph node metastases in head and neck squamous cell carcinoma (HNSCC). *Br. J. Cancer.* 92: 770-774.

CHROMOSOMAL LOCATION

Genetic locus: Ccnl2 (mouse) mapping to 4 E2.

SOURCE

cyclin L2 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of cyclin L2 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.

Blocking peptide available for competition studies, sc-33427 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

cyclin L2 (L-20) is recommended for detection of cyclin L2 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

cyclin L2 (L-20) is also recommended for detection of cyclin L2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for cyclin L2 siRNA (m): sc-44915, cyclin L2 shRNA Plasmid (m): sc-44915-SH and cyclin L2 shRNA (m) Lentiviral Particles: sc-44915-V.

Molecular Weight of cyclin L2: 55 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.