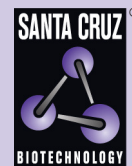


cyclin D1 (C-20): sc-717



The Power to Question

BACKGROUND

The proliferation of eukaryotic cells is controlled at specific points in the cell cycle, particularly at the G₁ to S and the G₂ to M transitions. It is well established that the Cdc2 p34-cyclin B protein kinase plays a critical role in the G₂ to M transition while cyclin A associates with Cdk2 p33 and functions in S phase. Considerable effort directed towards the identification of G₁ cyclins has led to the isolation of cyclin D, cyclin C and cyclin E. Of these, cyclin D corresponds to a putative human oncogene, designated PRAD1, which maps at the site of the Bcl1 rearrangement in certain lymphomas and leukemias. Two additional human type D cyclins, as well as their mouse homologs, have been identified. Evidence has established that members of the cyclin D family function to regulate phosphorylation of the retinoblastoma gene product, thereby activating E2F transcription factors.

CHROMOSOMAL LOCATION

Genetic locus: CCND1 (human) mapping to 11q13.3, CCND2 (human) mapping to 12p13.32; Ccnd1 (mouse) mapping to 7 F5, Ccnd2 (mouse) mapping to 6 F3.

SOURCE

cyclin D1 (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of cyclin D1 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-717 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as HRP conjugate for Western blotting, sc-717 HRP, 200 µg/1 ml; and as fluorescein (sc-717 FITC) or rhodamine (sc-717 TRITC) conjugates for immunofluorescence, 200 µg/1 ml.

APPLICATIONS

cyclin D1 (C-20) is recommended for detection of cyclin D1 and, to a lesser extent, cyclin D2 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of cyclin D1: 37 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, C32 nuclear extract: sc-2136 or KNRK nuclear extract: sc-2141.

RESEARCH USE

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

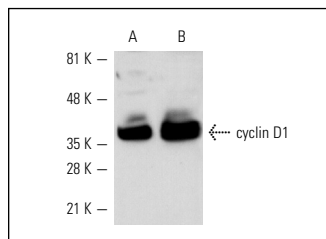
PROTOCOLS

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

STORAGE

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

DATA



cyclin D1 (C-20): sc-717. Western blot analysis of cyclin D1 expression in C32 (A) and KNRK (B) nuclear extracts.

SELECT PRODUCT CITATIONS

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7. Kurzawa, L., et al. 2011. Fluorescent peptide biosensor for probing the relative abundance of cyclin dependent kinases in living cells. *PLoS ONE* 6: e26555.
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11. Chen, S.M., et al. 2012. Inhibition of tumor cell growth, proliferation and migration by X-387, a novel active-site inhibitor of mTOR. *Biochem. Pharmacol.* 83: 1183-1194.