

cyclin D1 (H-295): sc-753



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.

SOURCE

cyclin D1 (H-295) is a rabbit polyclonal antibody raised against amino acids 1-295 representing full length cyclin D1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as fluorescein (sc-753 FITC) or rhodamine (sc-753 TRITC) conjugates for immunofluorescence, 200 µg/1 ml.

APPLICATIONS

cyclin D1 (H-295) is recommended for detection of cyclin D1 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), 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); strongly cross-reactive with cyclin D2 and cyclin D3.

cyclin D1 (H-295) is also recommended for detection of cyclin D1 in additional species, including canine, bovine and avian.

Molecular Weight of cyclin D1: 37 kDa.

Positive Controls: cyclin D1 (h): 293T Lysate: sc-171254, C32 nuclear extract: sc-2136 or KNRK nuclear extract: sc-2141.

STORAGE

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

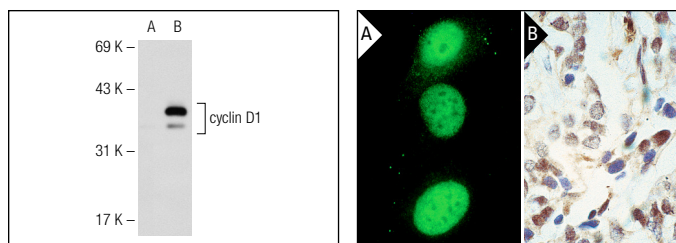
PROTOCOLS

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

RESEARCH USE

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

DATA



cyclin D1 (H-295): sc-753. Western blot analysis of cyclin D1 expression in non-transfected: sc-117752 (A) and human cyclin D1 transfected: sc-171254 (B) 293T whole cell lysates.

cyclin D1 (H-295): sc-753. Immunofluorescence staining of methanol-fixed C32 cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear staining (B).

SELECT PRODUCT CITATIONS

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3. Lee, H.M., et al. 2011. Autophagy negatively regulates keratinocyte inflammatory responses via scaffolding protein p62/SQSTM1. *J. Immunol.* 186: 1248-1258.
4. Rajendran, P., et al. 2011. Suppression of signal transducer and activator of transcription 3 activation by butein inhibits growth of human hepatocellular carcinoma *in vivo*. *Clin. Cancer Res.* 17: 1425-1439.
5. Kuo, S.H., et al. 2011. Lack of compensatory pAKT activation and eIF4E phosphorylation of lymphoma cells towards mTOR inhibitor, RAD001. *Eur. J. Cancer* 47: 1244-1257.
6. Prasad, S., et al. 2011. Gambogic acid inhibits STAT3 phosphorylation through activation of protein tyrosine phosphatase SHP-1: potential role in proliferation and apoptosis. *Cancer Prev. Res.* 4: 1084-1094.
7. Lee, J.Y., et al. 2011. Curcumin induces EGFR degradation in lung adenocarcinoma and modulates p38 activation in intestine: the versatile adjuvant for gefitinib therapy. *PLoS ONE* 6: e23756.
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