SANTA CRUZ BIOTECHNOLOGY, INC.

cyclin D1 (HD11): sc-246

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The proliferation of eukaryotic cells is controlled at specific points in the cell cycle, particularly at the G_1 to S and the G_2 to M transitions. It is well established that the Cdc2 p34-cyclin B protein kinase plays a critical role in the G_2 to M transition while cyclin A associates with Cdk2 p33 and functions in S phase. Considerable effort directed towards the identification of G_1 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 Bcl-1 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; Ccnd1 (mouse) mapping to 7 F5.

SOURCE

cyclin D1 (HD11) is a mouse monoclonal antibody raised against recombinant cyclin D1 of human origin.

PRODUCT

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

cyclin D1 (HD11) is available conjugated to agarose (sc-246 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-246 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-246 PE), fluorescein (sc-246 FITC), Alexa Fluor® 488 (sc-246 AF488), Alexa Fluor® 546 (sc-246 AF546), Alexa Fluor® 594 (sc-246 AF594) or Alexa Fluor® 647 (sc-246 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-246 AF680) or Alexa Fluor® 790 (sc-246 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

cyclin D1 (HD11) 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for cyclin D1 siRNA (h): sc-29286, cyclin D1 siRNA (m): sc-29287, cyclin D1 shRNA Plasmid (h): sc-29286-SH, cyclin D1 shRNA Plasmid (m): sc-29287-SH, cyclin D1 shRNA (h) Lentiviral Particles: sc-29286-V and cyclin D1 shRNA (m) Lentiviral Particles: sc-29287-V.

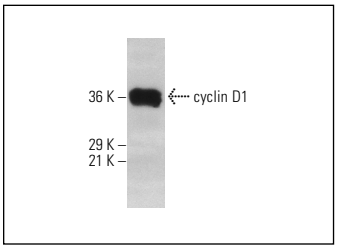
Molecular Weight of cyclin D1: 37 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, KNRK nuclear extract: sc-2141 or MCF7 nuclear extract: sc-2149.

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 (HD11): sc-246. Western blot analysis of cyclin D1 expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

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4. Garg, N., et al. 2013. microRNA-17-92 cluster is a direct Nanog target and controls neural stem cell through Trp53inp1. EMBO J. 32: 2819-2832.
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7. Tao, F., et al. 2016. Fuling granule, a traditional Chinese medicine compound, suppresses cell proliferation and TGFβ-induced EMT in ovarian cancer. PLoS ONE 11: e0168892.
8. Gallastegui, E., et al. 2017. p27 Kip1 represses the Pitx2-mediated expression of p21 Cip1 and regulates DNA replication during cell cycle progression. Oncogene 36: 350-361.
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10. Ma, Z., et al. 2019. Inhibitory effect of simvastatin in nasopharyngeal carcinoma cells. Exp. Ther. Med. 17: 4477-4484.
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RESEARCH USE

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