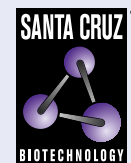


cyclin E2 (A-9): sc-28351



The Power to Question

BACKGROUND

Cyclin E, along with the three cyclin D proteins and cyclin C, has been shown to represent a putative G₁ cyclin on the basis of its cyclic pattern of mRNA expression, with maximal levels being detected near the G₁/S boundary. cyclin E has been found to be associated with the transcription factor E2F in a temporally regulated manner. Cyclin E2 is a cyclin E-related protein that specifically interacts with Cdk2 and Cdk3 and with p27 and p21. Cyclin E2 expression peaks at the G₁/S phase transition of the cell cycle, in parallel with cyclin E. Whereas cyclin E1 is expressed in most proliferating normal and tumor cells, cyclin E2 levels are low or undetectable in nontransformed cells, and are elevated in tumor-derived cells.

CHROMOSOMAL LOCATION

Genetic locus: CCNE2 (human) mapping to 8q22.1; Ccne2 (mouse) mapping to 4 A1.

SOURCE

cyclin E2 (A-9) is a mouse monoclonal antibody raised against amino acids 1-140 of cyclin E2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

cyclin E2 (A-9) is available conjugated to agarose (sc-28351 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-28351 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28351 PE), fluorescein (sc-28351 FITC), Alexa Fluor® 488 (sc-28351 AF488), Alexa Fluor® 546 (sc-28351 AF546), Alexa Fluor® 594 (sc-28351 AF594) or Alexa Fluor® 647 (sc-28351 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-28351 AF680) or Alexa Fluor® 790 (sc-28351 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

cyclin E2 (A-9) is recommended for detection of cyclin E2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

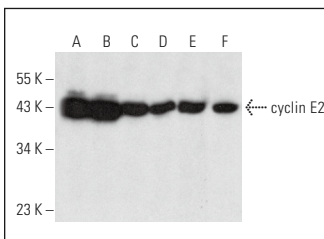
Suitable for use as control antibody for cyclin E2 siRNA (h): sc-37594, cyclin E2 siRNA (m): sc-37595, cyclin E2 shRNA Plasmid (h): sc-37594-SH, cyclin E2 shRNA Plasmid (m): sc-37595-SH, cyclin E2 shRNA (h) Lentiviral Particles: sc-37594-V and cyclin E2 shRNA (m) Lentiviral Particles: sc-37595-V.

Molecular Weight of cyclin E2: 45 kDa.

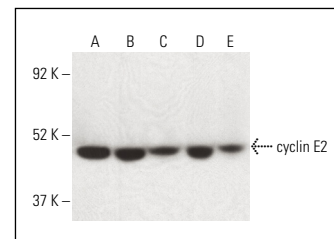
Positive Controls: SK-BR-3 cell lysate: sc-2218, K-562 whole cell lysate: sc-2203 or RAW 264.7 whole cell lysate: sc-2211.

STORAGE

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

DATA

cyclin E2 (A-9): sc-28351. Western blot analysis of cyclin E2 expression in SK-BR-3 (A), K-562 (B), RAW 264.7 (C), WEHI-231 (D), RBL-1 (E) and L8 (F) whole cell lysates.



cyclin E2 (A-9): sc-28351. Western blot analysis of cyclin E2 expression in SK-BR-3 (A), K-562 (B), Saos-2 (C), HeLa (D) and RAW 264.7 (E) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

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- Park, S.R., et al. 2020. Single-cell transcriptome analysis of colon cancer cell response to 5-fluorouracil-induced DNA damage. *Cell Rep.* 32: 108077.
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- Huang, S., et al. 2022. Clinical significance and oncogenic function of NR1H4 in clear cell renal cell carcinoma. *BMC Cancer* 22: 995.
- Kim, D., et al. 2022. LPA/LPAR1 signaling induces PGAM1 expression via AKT/mTOR/HIF-1α pathway and increases aerobic glycolysis, contributing to keratinocyte proliferation. *Life Sci.* 311: 121201.
- Yang, Y., et al. 2023. αKG-driven RNA polymerase II transcription of cyclin D1 licenses malic enzyme 2 to promote cell-cycle progression. *Cell Rep.* 42: 112770.
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RESEARCH USE

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