Cdc6 (180.2): sc-9964

BACKGROUND

Cell cycle events are regulated by the sequential activation and deactivation of cyclin dependent kinases (Cdks) and by the proteolysis of cyclins. The cell division control (Cdc) genes are required at various points in the cell cycle. Cdc25A, Cdc25B and Cdc25C protein tyrosine phosphatases function as mitotic activators by dephosphorylating Cdc2 p34 on regulatory tyrosine residues. Cdc6 is the human homolog of Saccharomyces cerevisiae Cdc6, which is involved in the initiation of DNA replication. Cdc37 appears to facilitate Cdk4/cyclin D1 complex formation and has been shown to form a stable complex with HSP 90. Cdc34, Cdc27 and Cdc16 function as ubiquitin-conjugating enzymes. Cdc34 is thought to be the structural and functional homolog of Saccharomyces cerevisiae Cdc34, which is essential for the G1 to S phase transition. Cdc16 and Cdc27 are components of the APC (ana-phase-promoting complex) which ubiquitinates cyclin B, resulting in cyclin B/Cdk complex degradation.

CHROMOSOMAL LOCATION

Genetic locus: CDC6 (human) mapping to 17q21.2; Cdc6 (mouse) mapping to 11 D.

SOURCE

Cdc6 (180.2) is a mouse monoclonal antibody raised against full length Cdc6 of human origin.

PRODUCT

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Cdc6 (180.2) is available conjugated to agarose (sc-9964 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-9964 HRP), 200 µg/ml, for WB, IHC P and ELISA; to either phycoerythrin (sc-9964 PE), fluorescein (sc-9964 FITC), Alexa Fluor® 488 (sc-9964 AF488), Alexa Fluor® 546 (sc-9964 AF546), Alexa Fluor® 594 (sc-9964 AF594) or Alexa Fluor® 647 (sc-9964 AF647), 200 µg/ml, for WB (RGB), IF, IHC P and FCM; and to either Alexa Fluor® 680 (sc-9964 AF680) or Alexa Fluor® 790 (sc-9964 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, Cdc6 (180.2) is available conjugated to TRITC (sc-9964 TRITC, 200 µg/ml), for IF, IHC P and FCM.

APPLICATIONS

Cdc6 (180.2) is recommended for detection of Cdc6 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).


Molecular Weight of Cdc6: 62 kDa.

STORAGE

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

DATA

Cdc6 (180.2): sc-9964. Western blot analysis of Cdc6 expression in HeLa (A), SK-BR-3 (B), NCI-H929 (C), BY2P (D) and SF210 (E) whole cell lysates.

Cdc6 (180.2): sc-9964. Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tumor (A). Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining (B).

SELECT PRODUCT CITATIONS


RESEARCH USE

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

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