Cdk4 (C-22): sc-260

BACKGROUND

Cell cycle progression is controlled in part by a family of cyclin proteins and cyclin-dependent kinases (Cdks). Cdk proteins work in concert with the cyclins to phosphorylate key substrates involved in each phase of cell cycle progression. Another family of proteins, Cdk inhibitors, also plays a role in regulating the cell cycle by binding to cyclin-Cdk complexes and modulating their activity.

Several Cdk proteins have been identified, including Cdk2-Cdk8, PCTAIRE-1-3, PITALRE and PITSILRE. Cdk4, in complex with D-type cyclins, is thought to regulate cell growth during the G1 phase of the cell cycle. This association with a D-type cyclin upregulates Cdk4 activity, whereas binding to the Cdk inhibitor p16 downregulates Cdk4 activity. Activation of the Cdk4-Cyclin complexes requires phosphorylation on a single threonyl residue of Cdk4, catalyzed by a Cdk-activating protein (CAK).

CHROMOSOMAL LOCATION

Genetic locus: CDK4 (human) mapping to 12q14.1; Cdk4 (mouse) mapping to 10 D3.

SOURCE

Cdk4 (C-22) is available as either rabbit (sc-260) or goat (sc-260-G) polyclonal antibody raised against a peptide mapping at the C-terminus of Cdk4 of mouse origin.

PRODUCT

Each vial contains 100 µg (sc-260) or 200 µg (sc-260-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-260 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose conjugate for immunoprecipitation, sc-260 AC, 500 µg/0.25 ml agarose in 1 ml; as HRP conjugate for Western blotting, sc-260 HRP, 200 µg/1 ml; and as fluorescein (sc-260 FITC) or rhodamine (sc-260 TRITC) for use in immunofluorescence, 200 µg/1 ml.

APPLICATIONS

Cdk4 (C-22) is recommended for detection of Cdk4 p34 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), kinase assay and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cdk4 (C-22) is also recommended for detection of Cdk4 p34 in additional species, including bovine.

Suitable for use as control antibody for Cdk4 siRNA (h): sc-29261, Cdk4 siRNA (m): sc-29262, Cdk4 shRNA Plasmid (h): sc-29261-SH, Cdk4 shRNA Plasmid (m): sc-29262-SH, Cdk4 shRNA (h) Lentiviral Particles: sc-29261-V and Cdk4 shRNA (m) Lentiviral Particles: sc-29262-V.

Molecular Weight of Cdk4: 34 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or HeLa nuclear extract: sc-2120.

STORAGE

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

DATA

Cdk4 (C-22)-G: sc-260. Western blot analysis of Cdk4 expression in Ramos whole cell lysate.

SELECT PRODUCT CITATIONS


RESEARCH USE

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