Cdk6 (DCS-83): sc-53638

**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 PITSLRE. Cdk6 is known to associate with cyclins D1, D2 and D3 and to be involved with the G1/S transition of the cell cycle. Multiple inhibitors of Cdk6 have been identified, including p18 and p19. These inhibitors bind to both free and complexed Cdk6, and they inhibit the activity of the cyclin D-bound Cdk6.

**CHROMOSOMAL LOCATION**

Genetic locus: CDK6 (human) mapping to 7q21.2; Cdk6 (mouse) mapping to 5 A1.

**SOURCE**

Cdk6 (DCS-83) is a mouse monoclonal antibody raised against amino acids 30-65 of Cdk6 of human origin.

**PRODUCT**

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

Cdk6 (DCS-83) is available conjugated to agarose (sc-53638 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53638 HRP), 200 µg/ml, for WB, IHCP (and ELISA); to either phycoerythrin (sc-53638 PE), fluorescein (sc-53638 FITC), Alexa Fluor® 546 (sc-53638 AF546), Alexa Fluor® 594 (sc-53638 AF594) or Alexa Fluor® 647 (sc-53638 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 680 (sc-53638 AF680) or Alexa Fluor® 790 (sc-53638 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Cdk6 (DCS-83) is recommended for detection of Cdk6 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:100-1:500).

Suitable for use as control antibody for Cdk6 siRNA (h): sc-29264, Cdk6 siRNA (m): sc-35048, Cdk6 shRNA Plasmid (h): sc-29264-SH, Cdk6 shRNA Plasmid (m): sc-35048-SH, Cdk6 shRNA (h) Lentiviral Particles: sc-29264-V and Cdk6 shRNA (m) Lentiviral Particles: sc-35048-V.

Molecular Weight of Cdk6: 40 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or Jurkat nuclear extract: sc-2132.

**STORAGE**

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

**RESEARCH USE**

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

**DATA**

Cdk6 (DCS-83): sc-53638. Western blot analysis of Cdk6 expression in HeLa (A), NIH/3T3 (B), Cdk (C), NCI-H460 (D), Raji (E) and SCC-4 (F) whole cell lysates.

Cdk6 (DCS-83): sc-53638. Western blot analysis of Cdk6 expression in K-562 (A) and Jurkat (B) whole cell lysates and phorbol treated Jurkat (C), phorbol treated K-562 (D) and Jurkat (E) nuclear extracts.

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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

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