

# Cdk6 (H-96): sc-7180

## 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, PITSLRE and PITSRE. Cdk6 is known to associate with cyclins D1, D2 and D3 and to be involved with the G<sub>1</sub>/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 (H-96) is a rabbit polyclonal antibody raised against amino acids 230-326 mapping at the C-terminus of Cdk6 of human origin.

## PRODUCT

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

## APPLICATIONS

Cdk6 (H-96) 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)], 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Cdk6 (H-96) is also recommended for detection of Cdk6 in additional species, including equine, canine, bovine and porcine.

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, Cdk6 (h): 293T Lysate: sc-114718 or Jurkat whole cell lysate: sc-2204.

## RESEARCH USE

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

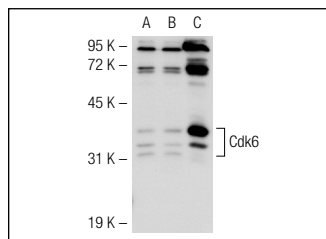
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

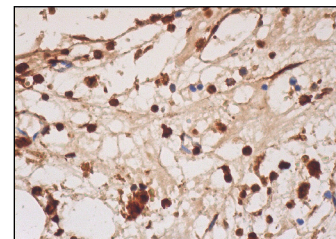
## STORAGE

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

## DATA



Cdk6 (H-96): sc-7180. Western blot analysis of Cdk6 expression in non-transfected 293T: sc-117752 (A), human Cdk6 transfected 293T: sc-114718 (B) and K-562 (C) whole cell lysates.



Cdk6 (H-96): sc-7180. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing nuclear and cytoplasmic staining of hematopoietic cells.

## SELECT PRODUCT CITATIONS

- Chan, F.K., et al. 1995. Identification of human and mouse p19, a novel Cdk4 and Cdk4 inhibitor with homology to p16<sup>INK4</sup>. *Mol. Cell. Biol.* 15: 2682-2688.
- Zen, Y., et al. 2005. Intrahepatic cholangiocarcinoma escapes from growth inhibitory effect of transforming growth factor-β1 by overexpression of cyclin D1. *Lab. Invest.* 85: 572-581.
- Furumoto, H., et al. 2005. An unliganded thyroid hormone β receptor activates the cyclin D1/cyclin-dependent kinase/retinoblastoma/E2F pathway and induces pituitary tumorigenesis. *Mol. Cell. Biol.* 25: 124-135.
- Li, F., et al. 2008. Involvement of cyclin D3, CDKN1A (p21), and BIRC5 (survivin) in interleukin 11 stimulation of decidualization in mice. *Biol. Reprod.* 78: 127-133.
- Furuya, F., et al. 2010. Liganded thyroid hormone receptor-α enhances proliferation of pancreatic β-cells. *J. Biol. Chem.* 285: 24477-24486.
- Santanam, U., et al. 2010. Chronic lymphocytic leukemia modeled in mouse by targeted miR-29 expression. *Proc. Natl. Acad. Sci. USA* 107: 12210-12215.
- Sun, Y., et al. 2011. Effects of an indolocarbazole-derived CDK4 inhibitor on breast cancer cells. *J. Cancer* 2: 36-51.
- Zhu, H., et al. 2012. Impaired N-cadherin-mediated adhesion increases the risk of inducible ventricular arrhythmias in isolated rat hearts. *Sci. Res. Essays* 7: 2983-2991.

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Try **Cdk6 (B-10): sc-7961** or **Cdk6 (DCS-83): sc-53638**, our highly recommended monoclonal alternatives to Cdk6 (H-96). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Cdk6 (B-10): sc-7961**.