

# Cdk11 (D-20): sc-69245

## BACKGROUND

Cell cycle progression is controlled, in part, by a family of cyclin-dependent kinases (Cdks) that work to phosphorylate key substrates involved in each phase of cell cycle progression. Cdks are the catalytic subunits of serine/threonine protein kinases, a large family of proteins that act as regulators of the eukaryotic cell cycle. Cdk11 (cyclin-dependent kinase 11), also known as Cdc2L6 (cell division cycle 2-like 6 (Cdk8-like)), is a 502 amino acid protein that contains one protein kinase domain and functions to catalyze the ATP-dependent transfer of phospho residues to target substrates. Additionally, Cdk11 exists as a component of the mediator co-activator complex, suggesting a role in transcriptional activation. Multiple isoforms of Cdk11 exist due to alternative splicing events. The gene encoding Cdk11 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome.

## REFERENCES

1. Sato, S., et al. 2004. A set of consensus mammalian mediator subunits identified by multidimensional protein identification technology. *Mol. Cell* 14: 685-691.
2. Yun, X., et al. 2007. Cdk11(p58) protein kinase activity is associated with Bcl-2 down-regulation in pro-apoptosis pathway. *Mol. Cell. Biochem.* 304: 213-218.
3. Tsutsui, T., et al. 2008. Human mediator kinase subunit Cdk11 plays a negative role in viral activator VP16-dependent transcriptional regulation. *Genes Cells* 13: 817-826.
4. Loyer, P., et al. 2008. Characterization of cyclin L1 and L2 interactions with Cdk11 and splicing factors: influence of cyclin L isoforms on splice site selection. *J. Biol. Chem.* 283: 7721-7732.

## CHROMOSOMAL LOCATION

Genetic locus: CDK19 (human) mapping to 6q21; Cdk19 (mouse) mapping to 10 B1.

## SOURCE

Cdk11 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Cdk11 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.

Blocking peptide available for competition studies, sc-69245 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

Cdk11 (D-20) is recommended for detection of Cdk11 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Cdk11 (D-20) is also recommended for detection of Cdk11 in additional species, including equine, canine, bovine and avian.

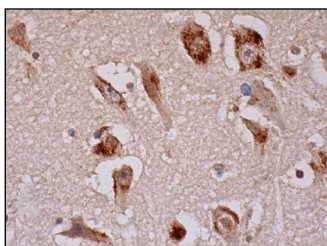
Suitable for use as control antibody for Cdk11 siRNA (h): sc-72844, Cdk11 siRNA (m): sc-72845, Cdk11 shRNA Plasmid (h): sc-72844-SH, Cdk11 shRNA Plasmid (m): sc-72845-SH, Cdk11 shRNA (h) Lentiviral Particles: sc-72844-V and Cdk11 shRNA (m) Lentiviral Particles: sc-72845-V.

Molecular Weight of Cdk11: 57 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Cdk11 (D-20): sc-69245. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic and weak nuclear staining of neuronal cells and cytoplasmic staining of glial cells.

## PROTOCOLS

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

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Try **Cdk11 (8B6): sc-517026**, our highly recommended monoclonal alternative to Cdk11 (D-20).