

# Cdc50A (X-24): sc-133449

## BACKGROUND

The eukaryotic cell division cycle consists of a number of gene-controlled sequences that involve cyclin dependent kinases (Cdk) and cell division cycle (Cdc) proteins. Cdc50A (cell cycle control protein 50A), also known as TMEM30A (transmembrane protein 30A) or C6orf67, is a 361 amino acid multi-pass membrane protein that is expressed in placenta, brain and embryonic stem cells and may play a role in cell division. The gene encoding Cdc50A maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

## REFERENCES

1. Katoh, Y. and Katoh, M. 2004. Identification and characterization of CDC50A, CDC50B and CDC50C genes in silico. *Oncol. Rep.* 12: 939-943.
2. Vuoristo, M.M., Pappas, J.G., Jansen, V. and Ala-Kokko, L. 2004. A stop codon mutation in COL11A2 induces exon skipping and leads to non-ocular Stickler syndrome. *Am. J. Med. Genet. A* 130: 160-164.
3. McQueen, M.B., Devlin, B., Faraone, S.V., Nimgaonkar, V.L., Sklar, P., Smoller, J.W., Abou Jamra, R., Albus, M., et al. 2005. Combined analysis from eleven linkage studies of bipolar disorder provides strong evidence of susceptibility loci on chromosomes 6q and 8q. *Am. J. Hum. Genet.* 77: 582-595.
4. Batts, K.P. 2007. Iron overload syndromes and the liver. *Mod. Pathol.* 20 Suppl. 1: S31-S39.
5. Park, E., Kim, S., Kim, S.J., Park, Y., Lee, J.S., Yoo, J.C., Kim, C.S., Kim do, K., Lee, S.Y., Chun, H.S. 2007. Modulation of Parkin gene expression in noradrenergic neuronal cells. *Int. J. Dev. Neurosci.* 25: 491-497.
6. Safadi, S.S. and Shaw, G.S. 2007. A disease state mutation unfolds the Parkin ubiquitin-like domain. *Biochemistry* 46: 14162-14169.
7. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611028. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: TMEM30A (human) mapping to 6q14.1; Tmem30a (mouse) mapping to 9 E1.

## SOURCE

Cdc50A (X-24) is an affinity purified rabbit polyclonal antibody raised against synthetic Cdc50A peptide of human origin.

## 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.

## PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

Cdc50A (X-24) is recommended for detection of Cdc50A of mouse, rat, human and zebrafish 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).

Suitable for use as control antibody for Cdc50A siRNA (h): sc-95079, Cdc50A siRNA (m): sc-142215, Cdc50A shRNA Plasmid (h): sc-95079-SH, Cdc50A shRNA Plasmid (m): sc-142215-SH, Cdc50A shRNA (h) Lentiviral Particles: sc-95079-V and Cdc50A shRNA (m) Lentiviral Particles: sc-142215-V.

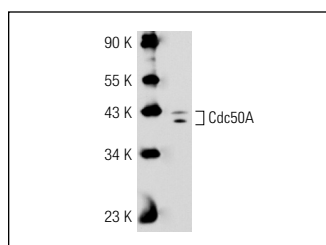
Molecular Weight of Cdc50A: 50 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

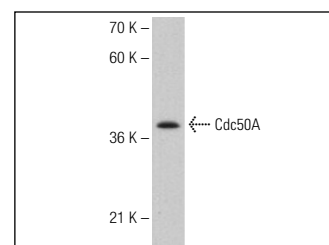
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz<sup>™</sup>: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



Cdc50A (X-24): sc-133449. Western blot analysis of Cdc50A expression in 293T whole cell lysate.



Cdc50A (X-24): sc-133449. Western blot analysis of Cdc50A expression in Hep G2 whole cell lysate.

## PROTOCOLS

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