SANTA CRUZ BIOTECHNOLOGY, INC.

# ADCK1 (D-12): sc-137279

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*The Power to Question*

## BACKGROUND

CABC1 (chaperone activity of bc1 complex-like), also known as COQ8 or ADCK3 (aarF domain-containing protein kinase 3) is a 647 amino acid mitochondrial protein that belongs to the ADCK protein kinase. Ubiquitously expressed, with higher expression in heart and skeletal muscle, CABC1 is thought to function as a chaperone in the proper assembly of protein complexes found in the respiratory chain. CABC1 expression is induced both in response to DNA damage and by the tumor suppressor p53. When CABC1 expression is inhibited, p53-induced apoptosis is partially suppressed, suggesting a possible role for CABC1 in tumor suppression. Mutations in the gene encoding CABC1 may be implicated in ubiquinone deficiency which can lead to cerebellar ataxia and seizures. Four isoforms of CABC1 exist due to alternative splicing events. Other members of the ADCK protein kinase family include ADCK1, ADCK2, ADCK4 and ADCK5.

## REFERENCES


1. Iiizumi, M., et al. 2002. Isolation of a novel gene, CABC1, encoding a mitochondrial protein that is highly homologous to yeast activity of bc1 complex. Cancer Res. 62: 1246-1250.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606980. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Wan, D., et al. 2004. Large-scale cDNA transfection screening for genes related to cancer development and progression. Proc. Natl. Acad. Sci. USA 101: 15724-15729.
4. Mollet, J., et al. 2008. CABC1 gene mutations cause ubiquinone deficiency with cerebellar ataxia and seizures. Am. J. Hum. Genet. 82: 623-630.
5. Lagier-Tourenne, C., et al. 2008. ADCK3, an ancestral kinase, is mutated in a form of recessive ataxia associated with coenzyme Q10 deficiency. Am. J. Hum. Genet. 82: 661-672.


## CHROMOSOMAL LOCATION

Genetic locus: ADCK1 (human) mapping to 14q24.3; Adck1 (mouse) mapping to 12 D3.

## SOURCE

ADCK1 (D-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADCK1 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-137279 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.

## APPLICATIONS

ADCK1 (D-12) is recommended for detection of ADCK1 isoforms 1 and 2 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ADCK family members.

ADCK1 (D-12) is also recommended for detection of ADCK1 isoforms 1 and 2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for ADCK1 siRNA (h): sc-92259, ADCK1 siRNA (m): sc-140874, ADCK1 shRNA Plasmid (h): sc-92259-SH, ADCK1 shRNA Plasmid (m): sc-140874-SH, ADCK1 shRNA (h) Lentiviral Particles: sc-92259-V and ADCK1 shRNA (m) Lentiviral Particles: sc-140874-V.

Molecular Weight of ADCK1: 61 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.

## RESEARCH USE

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

## PROTOCOLS

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