

CABC1 (H-41): sc-366173

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 protein kinase superfamily. 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.

REFERENCES

1. Iizumi, 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: ADCK3 (human) mapping to 1q42.13; Adck3 (mouse) mapping to 1 H4.

SOURCE

CABC1 (H-41) is a rabbit polyclonal antibody raised against amino acids 607-647 mapping at the C-terminus of CABC1 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.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

CABC1 (H-41) is recommended for detection of CABC1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CABC1 (H-41) is also recommended for detection of CABC1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for CABC1 siRNA (h): sc-78990, CABC1 siRNA (m): sc-105170, CABC1 shRNA Plasmid (h): sc-78990-SH, CABC1 shRNA Plasmid (m): sc-105170-SH, CABC1 shRNA (h) Lentiviral Particles: sc-78990-V and CABC1 shRNA (m) Lentiviral Particles: sc-105170-V.

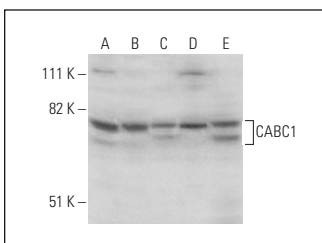
Molecular Weight of CABC1: 72 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or mouse liver extract: sc-2256.

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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) 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™ Mounting Medium: sc-24941.

DATA



CABC1 (H-41): sc-366173. Western blot analysis of CABC1 expression in HeLa (A), Hep G2 (B), U-251 MG (C) and IMR-32 (D) whole cell lysates and mouse liver tissue extract (E).

RESEARCH USE

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