

CABC1 Antibody

Mouse Monoclonal Antibody (Mab) Catalog # AM1890B

Specification

CABC1 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype IF, WB,E <u>O8NI60</u> <u>NP_064632.2</u> Human Mouse Monoclonal IgG1,K

CABC1 Antibody - Additional Information

Gene ID 56997

Other Names Chaperone activity of bc1 complex-like, mitochondrial, Chaperone-ABC1-like, 2711-, aarF domain-containing protein kinase 3, ADCK3, CABC1

Target/Specificity

This CABC1 monoclonal antibody is generated from mouse immunized with CABC1 recombinant protein.

Dilution IF~~1:10~50 WB~~1:500~1000 E~~Use at an assay dependent concentration.

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions CABC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

CABC1 Antibody - Protein Information

Name COQ8A {ECO:0000303|PubMed:27499294, ECO:0000312|HGNC:HGNC:16812}

Function Atypical kinase involved in the biosynthesis of coenzyme Q, also named ubiquinone, an essential lipid-soluble electron transporter for aerobic cellular respiration (PubMed:<u>21296186</u>,



PubMed:25498144, PubMed:25540914, PubMed:27499294, PubMed:36302899,

PubMed:<u>38425362</u>). Its substrate specificity is still unclear: may act as a protein kinase that mediates phosphorylation of COQ3 (By similarity). According to other reports, acts as a small molecule kinase, possibly a lipid kinase that phosphorylates a prenyl lipid in the ubiquinone biosynthesis pathway, as suggested by its ability to bind coenzyme Q lipid intermediates (PubMed:<u>25498144</u>, PubMed:<u>27499294</u>). However, the small molecule kinase activity was not confirmed by another publication (By similarity). Shows an unusual selectivity for binding ADP over ATP (PubMed:<u>25498144</u>).

Cellular Location

Mitochondrion membrane; Single-pass membrane protein {ECO:0000255, ECO:0000305|PubMed:25216398}

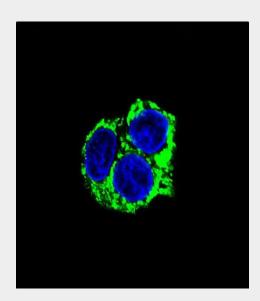
Tissue Location Widely expressed, with highest levels in adrenal gland, heart, pancreas, nasal mucosa, stomach, uterus and skeletal muscle.

CABC1 Antibody - Protocols

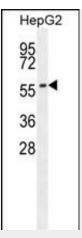
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

CABC1 Antibody - Images



Confocal immunofluorescent analysis of CABC1 Antibody (Cat#AM1890b) with HepG2 cell followed by Alexa Fluor® 488-conjugated goat anti-mouse lgG (green). DAPI was used to stain the cell nuclear (blue).



CABC1 antibody (Cat. #AM1890b) western blot analysis in HepG2 cell line lysates (35µg/lane).This demonstrates the CABC1 antibody detected the CABC1 protein (arrow).

CABC1 Antibody - Background

This gene encodes a mitochondrial protein similar to yeast ABC1, which functions in an electron-transferring membrane protein complex in the respiratory chain. It is not related to the family of ABC transporter proteins. Expression of this gene is induced by the tumor suppressor p53 and in response to DNA damage, and inhibiting its expression partially suppresses p53-induced apoptosis. Alternatively spliced transcript variants have been found; however, their full-length nature has not been determined.

CABC1 Antibody - References

Lagier-Tourenne, C., et al. Am. J. Hum. Genet. 82(3):661-672(2008) Mollet, J., et al. Am. J. Hum. Genet. 82(3):623-630(2008) Wan, D., et al. Proc. Natl. Acad. Sci. U.S.A. 101(44):15724-15729(2004) Iiizumi, M., et al. Cancer Res. 62(5):1246-1250(2002)