

CABC1 antibody (Ascites)

Mouse Monoclonal Antibody (Mab) Catalog # AM1890a

Product Information

Application	WB, E
Primary Accession	<u>Q8NI60</u>
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1,K
Clone Names	216CT7.5.1
Calculated MW	71950

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	WB~~1:500~16000 E~~Use at an assay dependent concentration.
Format	Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.
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 (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

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: <u>25498144</u> , PubMed: <u>25540914</u> , PubMed: <u>27499294</u> , PubMed: <u>36302899</u> , 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.

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.

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)

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