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DCI Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9230b

Product Information

Application	WB, E
Primary Accession	P42126
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB23475
Calculated MW	32816

Additional Information

Gene ID	1632
Other Names	Enoyl-CoA delta isomerase 1, mitochondrial, 2-trans-enoyl-CoA isomerase, Delta(3), Delta(2)-enoyl-CoA isomerase, D3, D2-enoyl-CoA isomerase, Dodecenoyl-CoA isomerase, ECI1, DCI
Target/Specificity	This DCI antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the C-terminal region of human DCI.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	DCI Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ECI1
Synonyms	DCI
Function	Auxiliary enzyme in the beta-oxidation of mono- and polyunsaturated fatty acids (PubMed:26474213, PubMed:7818490). Together with the

2,4-dienoyl-CoA reductase (DECR) and the Delta(3,5)- Delta(2,4)-dienoyl-CoA isomerase (ECH1), they allow the reentrance of the enoyl-CoA into the beta-oxidation cycle (PubMed:26474213). Able to isomerize both 3-cis (3Z) and 3-trans (3E) double bonds into the 2- trans (2E) form in a range of fatty enoyl-CoA species, with a preference for (3Z)-enoyl-CoAs over (3E)-enoyl-CoAs (PubMed:26474213, PubMed:7818490). The catalytic efficiency of this enzyme is not affected by the fatty acyl chain length, and based on its established catalytic mechanism, it is predicted to act also on other fatty acids besides those tested experimentally (By similarity).

Cellular Location Mitochondrion matrix {ECO:0000250|UniProtKB:P23965}

Tissue Location Expressed in liver (at protein level).

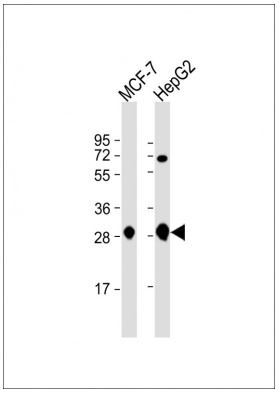
Background

DCI encodes a member of the hydratase/isomerase superfamily. The protein encoded is a key mitochondrial enzyme involved in beta-oxidation of unsaturated fatty acids. It catalyzes the transformation of 3-cis and 3-trans-enoyl-CoA esters arising during the stepwise degradation of cis-, mono-, and polyunsaturated fatty acids to the 2-trans-enoyl-CoA intermediates.

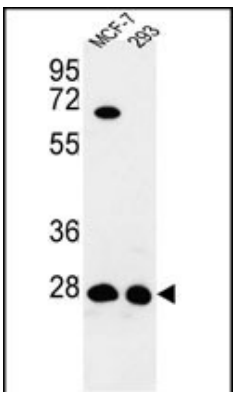
References

Partanen,S.T., et.al., J. Mol. Biol. 342 (4), 1197-1208 (2004)
Wistow,G., et.al, Mol. Vis. 8, 171-184 (2002)

Images



All lanes : Anti-DCI Antibody (C-term) at 1:1000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 33 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Western blot analysis of DCI Antibody (C-term) (Cat. #AP9230b) in MCF-7, 293 cell line lysates (35ug/lane). DCI (arrow) was detected using the purified Pab.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.