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DCI Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8770b

Product Information

Application	IHC-P, FC, WB, E
Primary Accession	P42126
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	32816
Antigen Region	275-302

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 between 275-302 amino acids from the C-terminal region of human DCI.
Dilution	IHC-P~~1:100~500 FC~~1:10~50 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).

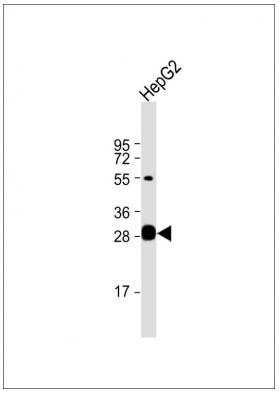
Background

DCI is 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.

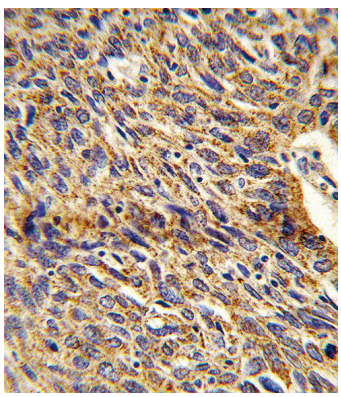
References

Takahashi,Y., et.al., Biochem. J. 304 (PT 3), 849-852 (1994)

Images

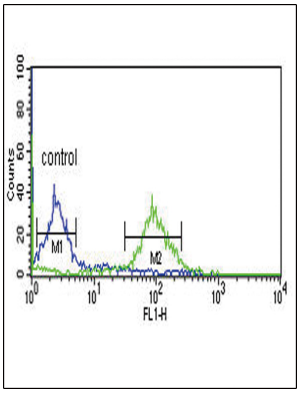


Anti-DCI Antibody (C-term) at 1:1000 dilution + HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 33 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human lung carcinoma reacted with DCI Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

DCI Antibody (C-term) (Cat. #AP8770b) flow cytometric analysis of MCF-7 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated



goat-anti-rabbit secondary antibodies were used for the analysis.

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