

Anti-DCI Antibody

Catalog # ABO11072

Product Information

Application	WB, IHC-P, ICC
Primary Accession	P42126
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Enoyl-CoA delta isomerase 1, mitochondrial(ECI1) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1632
Other Names	Enoyl-CoA delta isomerase 1, mitochondrial, 5.3.3.8, 3, 2-trans-enoyl-CoA isomerase, Delta(3), Delta(2)-enoyl-CoA isomerase, D3, D2-enoyl-CoA isomerase, Dodecenoyl-CoA isomerase, ECI1, DCI
Calculated MW	32816
Application Details	Immunocytochemistry , 0.5-1 μ g/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, By Heat Western blot, 0.1-0.5 μ g/ml, Human, Rat, Mouse
Subcellular Localization	Mitochondrion matrix.
Source	Eukaryota
Protein Name	Enoyl-CoA delta isomerase 1, mitochondrial
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human DCI(272-290aa ADVQNFVSFISKDSIQKSL), different from the related mouse sequence by two amino acids and from the related rat sequence by three amino acids.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

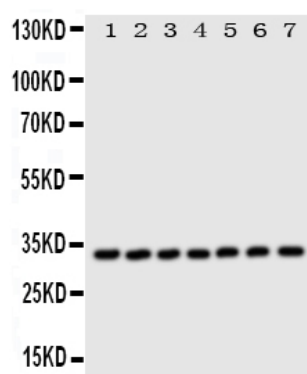
Protein Information

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).

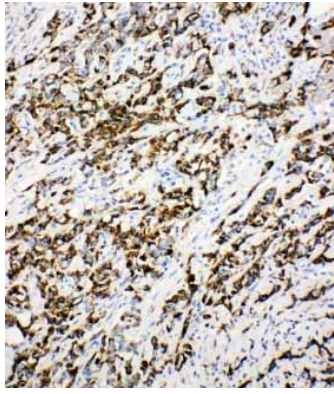
Background

ECI1/DCI (Dodecenoyl-CoA Delta Isomerase), also known as 3,2-trans-enoyl-CoA isomerase, is an enzyme that catalyzes the conversion of cis- or trans-double bonds of fatty acids at gamma-carbon (position 3) to trans double bonds at beta-carbon (position 2). It plays a particularly important role in the metabolism of unsaturated fatty acids. All classes of enoyl-CoA isomerases belong to a family of enzymes, the hydratase/isomerase or crotonase superfamily, and when examined with x-ray crystallography, exhibit a common structural feature of the family, the N-terminal core with a spiral fold composed of four turns, each turn consisting of two beta-sheets and one alpha-helix. Dodecenoyl-CoA Delta Isomerase is involved in the beta-oxidation, one of the most frequently used pathways in fatty acid degradation, of unsaturated fatty acids with double bonds at odd-numbered carbon positions. It does so by shifting the position of the double bonds in the acyl-CoA intermediates and converting 3-cis or trans-enoyl-CoA to 2-trans-enoyl-CoA.

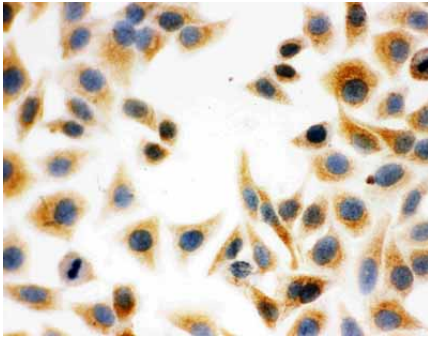
Images



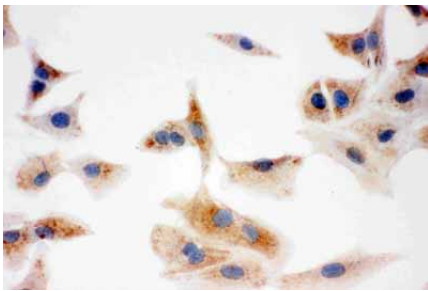
Anti-DCI antibody, ABO11072, Western blotting
 All lanes:
 Anti DCI (ABO11072) at 0.5ug/ml
 Lane 1: Rat Liver Tissue Lysate at 50ug
 Lane 2: Human Placenta Tissue Lysate at 50ug
 Lane 3: A549 Whole Cell Lysate at 40ug
 Lane 4: SMMC Whole Cell Lysate at 40ug
 Lane 5: COLO320 Whole Cell Lysate at 40ug
 Lane 6: HELA Whole Cell Lysate at 40ug
 Lane 7: HT1080 Whole Cell Lysate at 40ug
 Predicted bind size: 33KD
 Observed bind size: 33KD



Anti-DCI antibody, ABO11072, IHC(P)IHC(P): Human Mammary Cancer Tissue



Anti-DCI antibody, ABO11072, ICCICC: HELA Cell



Anti-DCI antibody, ABO11072, ICCICC: A549 Cell

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