

Anti-DCI Antibody
Catalog # ABO11072**Specification****Anti-DCI Antibody - Product Information**

Application	WB, IHC, 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.

Anti-DCI Antibody - 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 MW KDa

Application Details

Immunocytochemistry , 0.5-1 µg/ml, Human, -
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization

Mitochondrion matrix.

Protein Name

Enoyl-CoA delta isomerase 1, mitochondrial

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

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.

Anti-DCI Antibody - Protein Information

Name ECI1

Synonyms DCI

Function

Key enzyme of fatty acid beta-oxidation (Probable). Able to isomerize both 3-cis (3Z) and 3-trans (3E) double bonds into the 2-trans (2E) form in a range of enoyl-CoA species, with a preference for (3Z)-enoyl-CoAs over (3E)-enoyl-CoAs (By similarity) (PubMed: [7818490](http://www.uniprot.org/citations/7818490)). The catalytic efficiency of this enzyme is not affected by the fatty acyl chain length (By similarity).

Cellular Location

Mitochondrion matrix {ECO:0000250|UniProtKB:P23965}

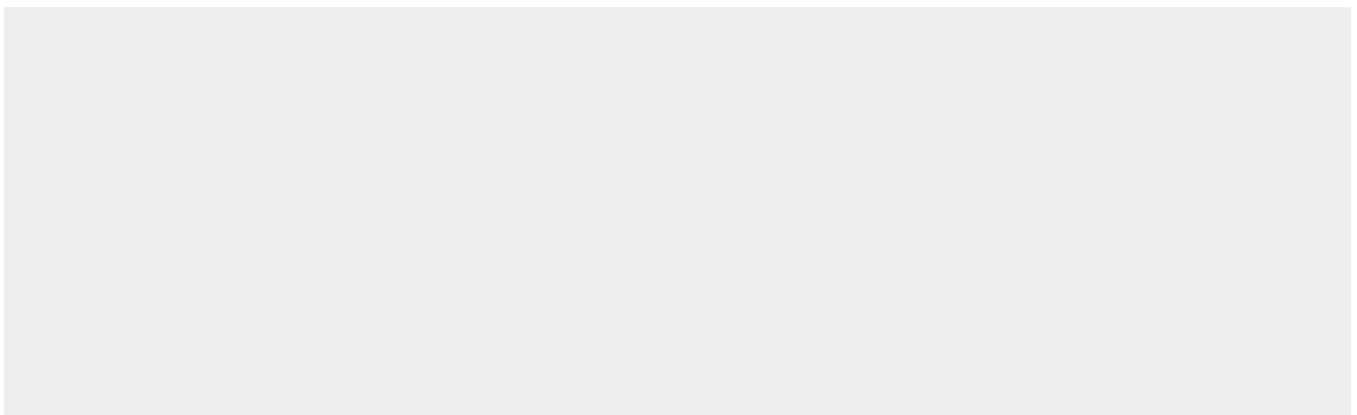
Tissue Location

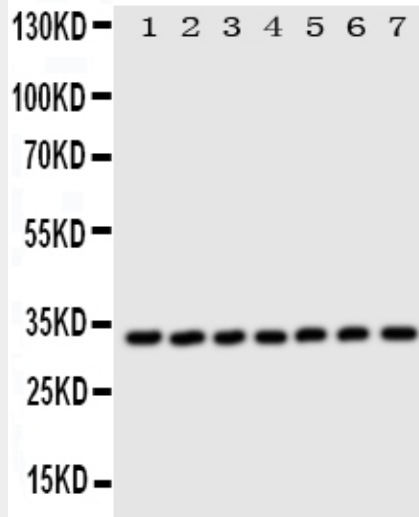
Expressed in liver (at protein level).

Anti-DCI Antibody - Protocols

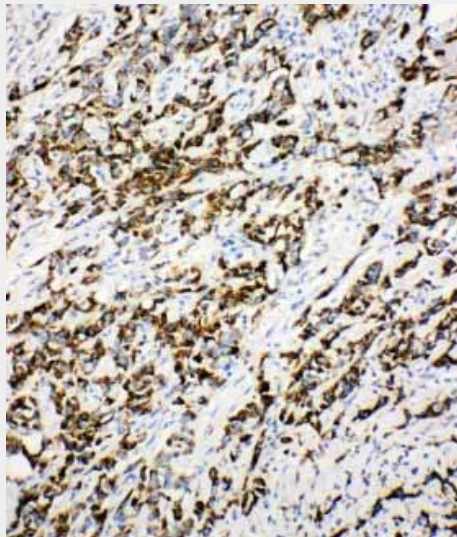
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

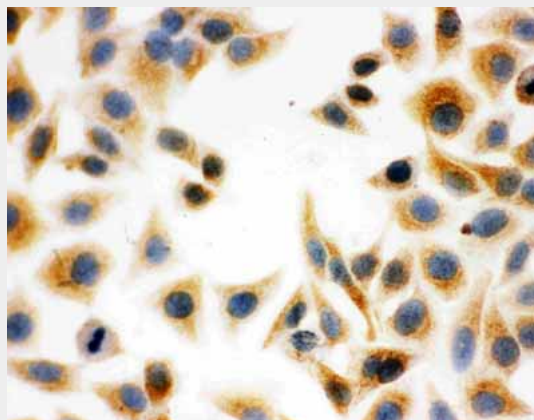
Anti-DCI Antibody - Images



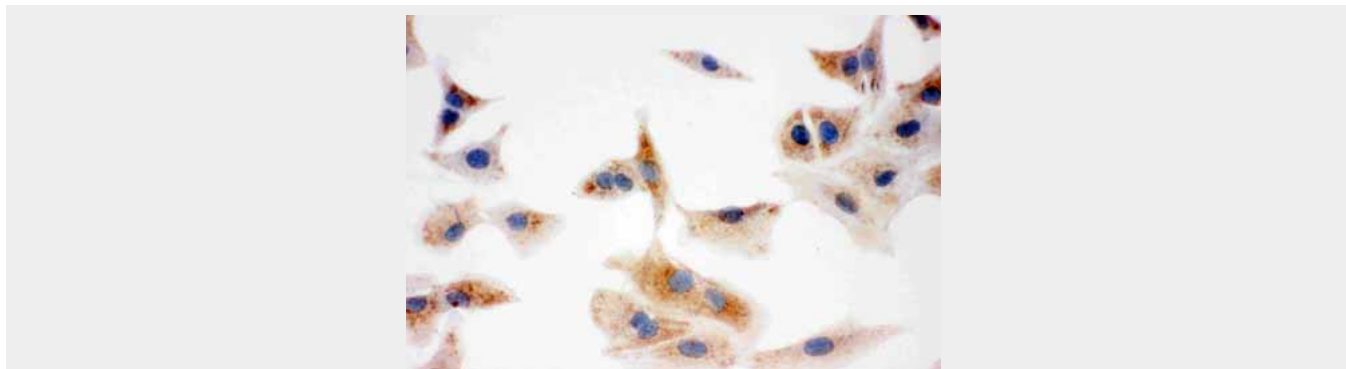
Anti-DCI antibody, ABO11072, Western blotting All lanes: Anti DCI (ABO11072) at 0.5ug/ml
Lane 1: Rat Liver Tissue Lysate at 50ug
Lane 2: Human Placenta Tissue Lysate at 50ug
Lane 3: A549 Whole Cell Lysate at 40ug
Lane 4: SMMC Whole Cell Lysate at 40ug
Lane 5: COLO320 Whole Cell Lysate at 40ug
Lane 6: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



Anti-DCI antibody, ABO11072, ICCICC: A549 Cell

Anti-DCI Antibody - Background

EC11/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.