10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

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 r˚Constitution, 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). 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 Cytomety
- Cell Culture

Anti-DCI Antibody - Images

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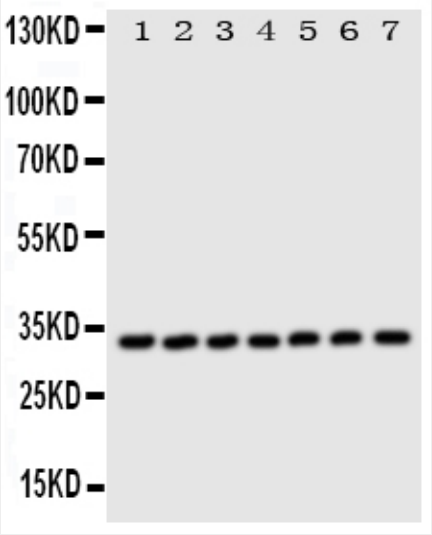
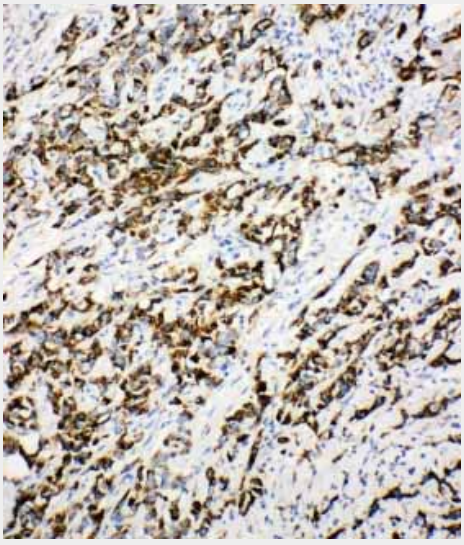
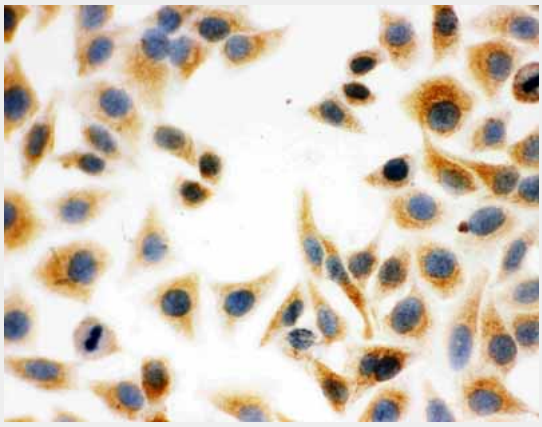


Anti-DCI antibody, ABO11072, Western blottingAll lanes: Anti DCI (ABO11072) at 0.5ug/mlLane 1: Rat Liver Tissue Lysate at 50ugLane 2: Human Placenta Tissue Lysate at 50ugLane 3: A549 Whole Cell Lysate at 40ugLane 4: SMMC Whole Cell Lysate at 40ugLane 5: COLO320 Whole Cell Lysate at 40ugLane 6: HELA Whole Cell Lysate at 40ugLane 7: HT1080 Whole Cell Lysate at 40ugPredicted bind size: 33KDObserved bind size: 33KD



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



Anti-DCI antibody, ABO11072, ICCICC: HELA Cell

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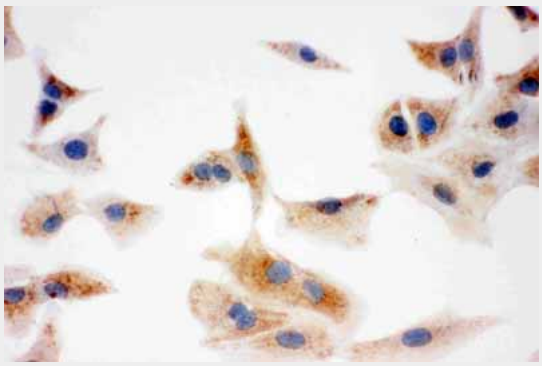

Anti-DCI antibody, ABO11072, ICCICC: A549 Cell

Anti-DCI Antibody - 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.