

**ERAB/HCD2 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10200****Specification**

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**ERAB/HCD2 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O70351</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	27246

**ERAB/HCD2 Antibody - Additional Information****Gene ID** 63864**Positive Control****Application & Usage**

Rat kidney tissue lysate, mouse 3T3 cell lysate, and Jurkat cell lysate  
The antibody can be used for Western blot analysis (1-4 µg/ml). However, the optimal conditions should be determined individually. Blocking peptide is available separately.

**Other Names**

3-hydroxyacyl-CoA dehydrogenase type-2

**Target/Specificity**

ERAB/HCD2

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) affinity purified rabbit anti-ERAB/HCD2 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 5 mM EDTA and 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

**Precautions**

ERAB/HCD2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ERAB/HCD2 Antibody - Protein Information**

**Name** Hsd17b10

**Synonyms** Erab, Hadh2

**Function**

Mitochondrial dehydrogenase involved in pathways of fatty acid, branched-chain amino acid and steroid metabolism. Acts as (S)-3- hydroxyacyl-CoA dehydrogenase in mitochondrial fatty acid beta- oxidation, a major degradation pathway of fatty acids. Catalyzes the third step in the beta-oxidation cycle, namely the reversible conversion of (S)-3-hydroxyacyl-CoA to 3-ketoacyl-CoA. Preferentially accepts straight medium- and short-chain acyl-CoA substrates with highest efficiency for (3S)-hydroxybutanoyl-CoA. Acts as 3-hydroxy-2- methylbutyryl-CoA dehydrogenase in branched-chain amino acid catabolic pathway. Catalyzes the oxidation of 3-hydroxy-2-methylbutanoyl-CoA into 2-methyl-3-oxobutanoyl-CoA, a step in isoleucine degradation pathway. Has hydroxysteroid dehydrogenase activity toward steroid hormones and bile acids. Catalyzes the oxidation of 3alpha-, 17beta-, 20beta- and 21-hydroxysteroids and 7alpha- and 7beta-hydroxy bile acids. Oxidizes allopregnanolone/brexanolone at the 3alpha-hydroxyl group, which is known to be critical for the activation of gamma-aminobutyric acid receptors (GABAARs) chloride channel. Has phospholipase C-like activity toward cardiolipin and its oxidized species. Likely oxidizes the 2'- hydroxyl in the head group of cardiolipin to form a ketone intermediate that undergoes nucleophilic attack by water and fragments into diacylglycerol, dihydroxyacetone and orthophosphate. Has higher affinity for cardiolipin with oxidized fatty acids and may degrade these species during the oxidative stress response to protect cells from apoptosis. By interacting with intracellular amyloid-beta, it may contribute to the neuronal dysfunction associated with Alzheimer disease (AD). Essential for structural and functional integrity of mitochondria.

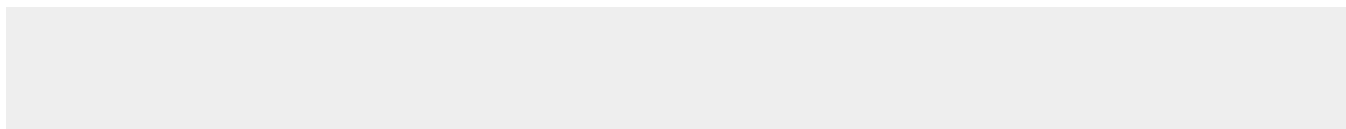
**Cellular Location**

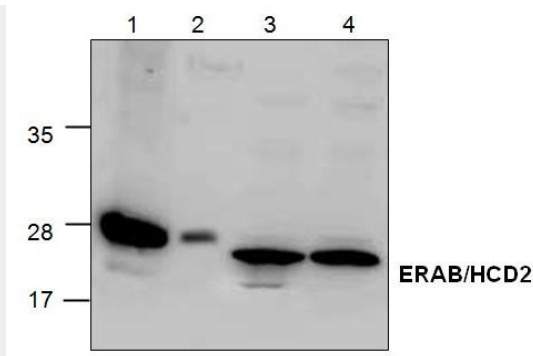
Mitochondrion {ECO:0000250|UniProtKB:Q99714}. Mitochondrion matrix, mitochondrion nucleoid {ECO:0000250|UniProtKB:Q99714}

**ERAB/HCD2 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](#)

**ERAB/HCD2 Antibody - Images**



Western blot analysis of ERAB/HCD2 using rat kidney tissue lysate (Lane 1), mouse 3T3 cell lysate (Lane 2) and Jurkat cell lysate (Lane 3 & 4).

#### **ERAB/HCD2 Antibody - Background**

ERAB/HCD2 (Hydroxyacyl-Coenzyme A dehydrogenase) is a mitochondrial protein that catalyzes the oxidation of straight-chain 3-hydroxyacyl-CoAs as part of the beta-oxidation pathway. ERAB is characterized as a NAD<sup>+</sup>-dependent dehydrogenase that overexpressed in neurons affected with Alzheimer's disease.