

ERAB/HCD2 Blocking Peptide
Catalog # PBV10106b**Specification**

ERAB/HCD2 Blocking Peptide - Product Information

Primary Accession	O70351
Gene ID	63864
Calculated MW	27246

ERAB/HCD2 Blocking Peptide - Additional Information**Gene ID** 63864**Application & Usage**

The peptide is used for blocking the antibody activity of ERAB/HCD2. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

Other Names

3-hydroxyacyl-CoA dehydrogenase type-2, 1.1.1.35, 17-beta-hydroxysteroid dehydrogenase 10, 17-beta-HSD 10, 1.1.1.51, 3-hydroxy-2-methylbutyryl-CoA dehydrogenase, 1.1.1.178, 3-hydroxyacyl-CoA dehydrogenase type II, Endoplasmic reticulum-associated amyloid beta-peptide-binding protein, Mitochondrial ribonuclease P protein 2, Mitochondrial RNase P protein 2, Type II HADH, Hsd17b10, Erab, Hadh2

Target/Specificity

ERAB/HCD2

Formulation

50 µg (0.5 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

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

ERAB/HCD2 Blocking Peptide - 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 Blocking Peptide - 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 Blocking Peptide - Images