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Anti-ERAB Monoclonal Antibody

Catalog # ABO14391

Product Information

Application	WB, IHC, IF, ICC, FC
Primary Accession	Q99714
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-ERAB Monoclonal Antibody . Tested in WB, IHC, ICC/IF, Flow Cytometry applications. This antibody reacts with Human, Mouse, Rat.

Additional Information

Gene ID	3028
Other Names	3-hydroxyacyl-CoA dehydrogenase type-2, 1.1.1.35, 17-beta-estradiol 17-dehydrogenase, 1.1.1.62, 2-methyl-3-hydroxybutyryl-CoA dehydrogenase, MHBD, 3-alpha-(17-beta)-hydroxysteroid dehydrogenase (NAD(+)), 1.1.1.239, 3-hydroxy-2-methylbutyryl-CoA dehydrogenase, 1.1.1.178, 3-hydroxyacyl-CoA dehydrogenase type II, 3alpha(or 20beta)-hydroxysteroid dehydrogenase, 1.1.1.53, 7-alpha-hydroxysteroid dehydrogenase, 1.1.1.159, Endoplasmic reticulum-associated amyloid beta-peptide-binding protein, Mitochondrial ribonuclease P protein 2, Mitochondrial RNase P protein 2, Short chain dehydrogenase/reductase family 5C member 1, Short-chain type dehydrogenase/reductase XH98G2, Type II HADH, HSD17B10, ERAB, HADH2, MRPP2, SCHAD, SDR5C1, XH98G2
Calculated MW	26923
Application Details	WB 1:1000-1:5000 IHC 1:50-1:200 ICC/IF 1:50-1:200 FC 1:50
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: ACOD-8
Immunogen	A synthesized peptide derived from human ERAB
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at

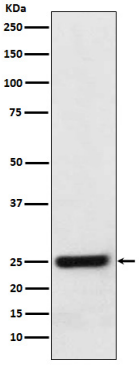
4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	HSD17B10
Synonyms	ERAB, HADH2, MRPP2, SCHAD, SDR5C1, XH98G
Function	Mitochondrial dehydrogenase involved in pathways of fatty acid, branched-chain amino acid and steroid metabolism (PubMed:10600649, PubMed:12917011, PubMed:18996107, PubMed:19706438, PubMed:20077426, PubMed:25925575, PubMed:26950678, PubMed:28888424, PubMed:9553139). 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 (PubMed:10600649, PubMed:12917011, PubMed:25925575, PubMed:26950678, PubMed:9553139). 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 (PubMed:18996107, PubMed:19706438, PubMed:20077426). 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 (PubMed:10600649, PubMed:12917011). 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 (PubMed:19706438, PubMed:28888424). 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 (PubMed:26338420). By interacting with intracellular amyloid-beta, it may contribute to the neuronal dysfunction associated with Alzheimer disease (AD) (PubMed:9338779). Essential for structural and functional integrity of mitochondria (PubMed:20077426).
Cellular Location	Mitochondrion. Mitochondrion matrix, mitochondrion nucleoid
Tissue Location	Ubiquitously expressed in normal tissues but is overexpressed in neurons affected in AD.

Images

Western blot analysis of ERAB expression in HeLa cell lysate.



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