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EHHADH Rabbit pAb

Catalog # AP100119

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q08426
Other Accession	Q08426
Reactivity	Rat
Predicted	Human, Mouse, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	79495
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human EHHADH
Epitope Specificity	631-723/723
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	In the N-terminal section; belongs to the enoyl-CoA hydratase/isomerase family.In the C-terminal section; belongs to the 3-hydroxyacyl-CoA dehydrogenase family.
SUBUNIT	Monomer.
Post-translational modifications	Acetylated, leading to enhanced enzyme activity. Acetylation is enhanced by up to 80% after treatment either with trichostin A (TSA) or with nicotinamide (NAM) with highest increase on Lys-346. Acetylation and enzyme activity increased by about 1.5% on addition of fatty acids.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	EHHADH is one of three preoxisomal enzymes of the classic peroxisomal Beta-oxidation cycle involved in the catabolism of free fatty acids.Most dietary long chain fatty acids are oxidized in the mitochondria, but very-long-chain fatty acids (VLCFAs) must be shortened first by peroxisomal Beta-oxidation prior to complete oxidation in mitochondria.

Additional Information

Gene ID	1962
Other Names	ECHD; FRTS3; L-PBE; LBFP; LBP; MFE1; PBFE; 1300002P22Rik; HD; MFP; MFP-1; MFP1; ECHP_HUMAN; EHHADH; PBE; L-bifunctional protein (LBP); Multifunctional enzyme 1 (MFE1); ECHP_MOUSE; L-peroxisomal bifunctional enzyme (L-PBE); Multifunctional protein 1 (MFP-1); enoyl-CoA hydratase and 3-hydroxyacyl CoA dehydrogenase; enoyl-Coenzyme A, hydratase/3-hydroxyacyl Coenzyme A dehydrogenase
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	EHHADH (HGNC:3247)
Synonyms	ECHD
Function	Peroxisomal trifunctional enzyme possessing 2-enoyl-CoA hydratase, 3-hydroxyacyl-CoA dehydrogenase, and delta 3, delta 2-enoyl- CoA isomerase activities. Catalyzes two of the four reactions of the long chain fatty acids peroxisomal beta-oxidation pathway (By similarity). Can also use branched-chain fatty acids such as 2-methyl- 2E-butenoyl-CoA as a substrate, which is hydrated into (2S,3S)-3- hydroxy-2-methylbutanoyl-CoA (By similarity). Optimal isomerase for 2,5 double bonds into 3,5 form isomerization in a range of enoyl-CoA species (Probable). Also able to isomerize both 3-cis and 3-trans double bonds into the 2-trans form in a range of enoyl-CoA species (By similarity). With HSD17B4, catalyzes the hydration of trans-2-enoyl-CoA and the dehydrogenation of 3-hydroxyacyl-CoA, but with opposite chiral specificity (PubMed:15060085). Regulates the amount of medium-chain dicarboxylic fatty acids which are essential regulators of all fatty acid oxidation pathways (By similarity). Also involved in the degradation of long-chain dicarboxylic acids through peroxisomal beta- oxidation (PubMed:15060085).
Cellular Location	Peroxisome.
Tissue Location	Liver and kidney. Strongly expressed in the terminal segments of the proximal tubule. Lower amounts seen in the brain.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.