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ECHS1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP6907b

Specification

ECHS1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	P30084

ECHS1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 1892

Other Names
Enoyl-CoA hydratase, mitochondrial, Enoyl-CoA hydratase 1, Short-chain enoyl-CoA hydratase, SCEH, ECHS1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6907b was selected from the C-term region of human ECHS1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ECHS1 Antibody (C-term) Blocking Peptide - Protein Information

Name ECHS1 (HGNC:3151)

Function
Converts unsaturated trans-2-enoyl-CoA species ((2E)-enoyl- CoA) to the corresponding (3S)-3hydroxyacyl-CoA species through addition of a water molecule to the double bond (PubMed:25125611, PubMed:26251176). Catalyzes the hydration of medium- and short-chained fatty enoyl-CoA thioesters from 4 carbons long (C4) up to C16 (PubMed:26251176). Has high substrate specificity for crotonyl-CoA ((2E)-butenoyl-CoA) and moderate specificity for acryloyl-CoA, 3- methylcrotonyl-CoA (3-methyl-(2E)-butenoyl-CoA) and methacrylyl-CoA ((2E)-2-methylpropenoyl-CoA) (PubMed:26251176). Can bind tiglyl-CoA (2- methylcrotonoyl-CoA), but hydrates only a small amount of this substrate

(PubMed:26251176). Plays a key role in the beta-oxidation spiral of short- and medium-chain fatty acid oxidation (PubMed:25125611, PubMed:26251176). At a lower rate than the hydratase reaction, catalyzes the isomerase reaction of trans-3-enoyl-CoA species (such as (3E)-hexenoyl-CoA) to trans-2-enoyl-CoA species (such as (2E)- hexenoyl-CoA), which are subsequently hydrated to 3(S)-3-hydroxyacyl- CoA species (such as (3S)-hydroxyhexanoyl-CoA) (By similarity).

Cellular Location
Mitochondrion matrix.

Tissue Location
Liver, fibroblast, muscle. Barely detectable in spleen and kidney

ECHS1 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

ECHS1 Antibody (C-term) Blocking Peptide - Images

ECHS1 Antibody (C-term) Blocking Peptide - Background

ECHS1 functions in the second step of the mitochondrial fatty acid beta-oxidation pathway. It catalyzes the hydration of 2-trans-enoyl-coenzyme A (CoA) intermediates to L-3-hydroxyacyl-CoAs. It is a member of the hydratase/isomerase superfamily.

ECHS1 Antibody (C-term) Blocking Peptide - References

Bruneel,A., et.al., Proteomics 5 (15), 3876-3884 (2005)