

# Recombinant human ECHS1 protein

Catalog Number: ATGP3567

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

28-290aa

### UniProt No.

P30084

### NCBI Accession No.

AAH08906

### Alternative Names

Enoyl Coenzyme A hydratase, short chain 1 mitochondrial, SCEH

## PRODUCT SPECIFICATION

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### Molecular Weight

30.6 kDa (284aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 20% glycerol, 100mM NaCl

### Purity

> 95% by SDS-PAGE

### Biological Activity

Specific activity is > 150unit/mg, and is defined as the amount of enzyme that hydrolyze 1.0 umole of crotonoyl-CoA to hydroxybutyryl-CoA per minute per minute at pH 7.5 at 25C.

### Tag

His-Tag

### Application

Enzyme Activity, SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

Enoyl Coenzyme A hydratase, short chain 1 mitochondrial, also known as ECHS1, is a member of the hydratase/isomerase superfamily. It localizes to the mitochondrial matrix. Expressed in muscle, liver and fibroblasts, with low expression in kidney and spleen, ECHS1 exists as a homohexamer that functions in the

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second step of the mitochondrial fatty acid beta-oxidation pathway. Recombinant human ECHS1 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

### Amino acid Sequence

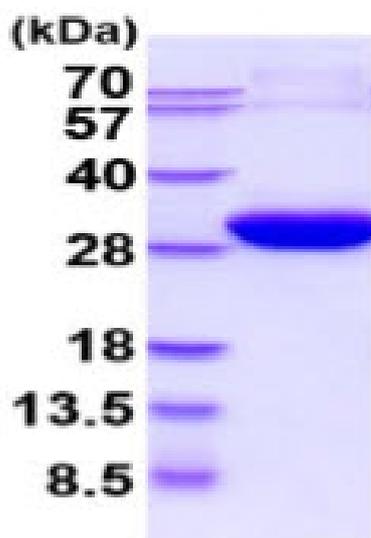
MGSSHHHHHHH SSGLVPRGSH MASGANFEYI IAEKRGKNNNT VGLIQLNRPK ALNALCDGLI DELNQALKIF EEDPAVGAIV  
LTGGDKAFAA GADIKEMQNL SFQDCYSSKF LKHWDHLTQV KKPVIAAVNG YAFGGGCELA MMCDIIYAGE KAQFAQPEIL  
IGTIPGAGGT QRLTRAVGKS LAMEMVLTGD RISAQDAKQA GLVSKICPVE TLVEEAIQCA EKIASNSKIV VAMAKESVNA  
AFEMTLTEGS KLEKLFYST FATDDRKEGM TAFVEKRKAN FKDQ

### General References

Kanazawa M., et al. (1993) *Enzyme Protein*. 47:9-13.  
Stern J R., et al. (1956) *J Biol Chem*. 218:985-1002.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)