# **Human ECH1 Protein (His Tag)**

Catalog Number: 14566-H07E



# **General Information**

### Gene Name Synonym:

**HPXEL** 

### **Protein Construction:**

A DNA sequence encoding the mature form of human ECH1 (Q13011) (Thr34-Leu328) was expressed with a polyhistide tag at the N-terminus.

Source: Human

Expression Host: E. coli

**QC** Testing

Purity: > 90 % as determined by SDS-PAGE

**Endotoxin:** 

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

### **Molecular Mass:**

The recombinant human ECH1 consists of 310 amino acids and predicts a molecular mass of 34 KDa. It migrates as an approximately 34 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 20mM Tris, 0.1M NaCl, 10% Glycerol, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

# **Usage Guide**

### Storage:

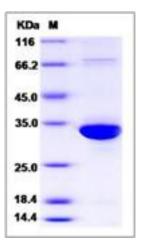
Store it under sterile conditions at  $\text{-}20\,^\circ\!\text{C}$  to  $\text{-}80\,^\circ\!\text{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

## Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



# **Protein Description**

ECH1 is a member of the hydratase/isomerase superfamily. ECH1 shows high sequence similarity to enoyl-CoA hydratases of several species, particularly within a conserved domain characteristic of these proteins. ECH1 contains a C-terminal peroxisomal targeting sequence and localizes to peroxisomes. The rat ortholog, which localizes to the matrix of both the peroxisome and mitochondria, can isomerize 3-trans, 5-cis-dienoyl-CoA to 2-trans,4-trans-dienoyl-CoA, indicating that it is a delta3,5-delta2,4-dienoyl-CoA isomerase. ECH1 functions in the auxiliary step of the fatty acid beta-oxidation pathway. Expression of the rat gene is induced by peroxisome proliferators.

### References

1.Kovalyov LI, et al. (2006) Polymorphism of delta3,5-delta2,4-dienoyl-coenzyme A isomerase (the ECH1 gene product protein) in human striated muscle tissue. Biochemistry Mosc. 71(4): 448-53. 2.Olsen JV, et al. (2006) Global, in vivo, and site-specific phosphorylation dynamics in signaling networks. Cell. 127(3):635-48. 3.FitzPatrick DR, et al. (1995) Isolation and characterization of rat and human cDNAs encoding a novel putative peroxisomal enoyl-CoA hydratase. Genomics. 27(3):457-66.

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