

ECHDC3 Antibody / Enoyl-CoA hydratase domain containing 3 Antibody (FY13665)

Catalog No.	Formulation	Size
FY13665	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

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Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
UniProt	Q96DC8
Applications	Western Blot : 0.5-1ug/ml ELISA : 0.1-0.5 ug/ml
Limitations	This ECHDC3 Antibody / Enoyl-CoA hydratase domain containing 3 Antibody is provided for laboratory research use only.

ECHDC3 Antibody by WB in Rat and Mouse Tissue Lysates. Western blot analysis of ECHDC3 in rat liver (lane 1), rat kidney (lane 2), mouse liver (lane 3), and mouse kidney (lane 4) using ECHDC3 Antibody. Each lane contained 30 ug of total protein separated under reducing conditions on a 10% SDS-PAGE gel. Following transfer to nitrocellulose, the membrane was probed with primary antibody at 0.5 ug/ml overnight at 4°C and an HRP-conjugated secondary antibody. Bands appear at approximately 28-33 kDa, consistent with the reported 33 kDa size of enoyl-CoA hydratase domain containing 3. Detection was performed by enhanced chemiluminescence.

Description

ECHDC3 Antibody / Enoyl-CoA hydratase domain containing 3 Antibody targets ECHDC3, a protein bearing an enoyl-CoA hydratase-related domain. Enzymes with this structural fold participate in diverse reactions involving acyl-CoA metabolites, including steps associated with fatty acid and organic acid metabolism. The presence of a recognizable catalytic domain places ECHDC3 within a metabolically relevant protein family, but it does not establish that its physiological substrates are identical to those of well-characterized mitochondrial beta-oxidation enzymes.

Fatty acid oxidation proceeds through repeated transformations of acyl-CoA intermediates, including dehydrogenation,

hydration, oxidation, and thiolytic cleavage. Enoyl-CoA hydratases catalyze the addition of water across particular carbon-carbon double bonds, producing hydroxyacyl-CoA products. Related enzyme folds can also be adapted to other biochemical reactions, making direct substrate characterization necessary for assigning precise function. ECHDC3 has attracted attention in studies of metabolic regulation and altered gene expression, yet its endogenous reaction and contribution to pathway flux remain less firmly established than those of canonical beta-oxidation enzymes.

Metabolic proteins can influence cellular physiology through both catalytic activity and changes in the availability of intermediates that feed other pathways. Expression associations with a metabolic phenotype are informative, but they cannot independently establish a direct biochemical mechanism. For ECHDC3, resolving subcellular localization, substrate preference, and regulation will be essential to distinguish potential functions from those inferred through sequence similarity. NSJ Bioreagents offers this ECHDC3 Antibody to support studies of ECHDC3 abundance in the context of acyl-CoA metabolism and metabolic pathway organization. A clearer biochemical definition of ECHDC3 could establish how this hydratase-domain protein fits into the wider network of reactions that process activated organic acids.

Explore related research targets in our [Metabolism Antibody / Metabolism Antibodies](#) collection.

Application Notes

An appropriate dilution of the ECHDC3 Antibody / Enoyl-CoA hydratase domain containing 3 Antibody should be determined empirically before routine use.

Immunogen

The ECHDC3 Antibody was generated using e. coli-derived human ECHDC3 recombinant protein (amino acids S32-V303).

Storage

Store the reconstituted ECHDC3 Antibody at 4oC for up to one month. For long-term storage, divide into aliquots and keep at -20oC for up to six months. Avoid repeated freeze-thaw cycles.

Alternate Names

ECHDC3 antibody, Enoyl-CoA hydratase domain-containing protein 3, mitochondrial antibody, Enoyl-CoA hydratase domain-containing protein 3 antibody, mitochondrial antibody, enoyl-CoA hydratase domain containing 3 antibody, PP8332 antibody, PP1494 antibody