

KD-Validated Anti-HADHA Mouse Monoclonal Antibody
Mouse monoclonal antibody
Catalog # AGI1958

Specification

KD-Validated Anti-HADHA Mouse Monoclonal Antibody - Product Information

Application	WB, FC
Primary Accession	P40939
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Calculated MW	Predicted, 83 kDa, observed, 73 kDa kDa
Gene Name	HADHA
Aliases	HADHA; Hydroxyacyl-CoA Dehydrogenase Trifunctional Multienzyme Complex Subunit Alpha; LCHAD; LCEH; MTPA; GBP; Hydroxyacyl-Coenzyme A Dehydrogenase/3-Ketoacyl-Coenzyme A Thiolase/Enoyl-Coenzyme A HydRatase (Trifunctional Protein), Alpha Subunit; Hydroxyacyl-CoA Dehydrogenase/3-Ketoacyl-CoA Thiolase/Enoyl-CoA HydRatase (Trifunctional Protein), Alpha Subunit; Mitochondrial Trifunctional Protein, Alpha Subunit; Trifunctional Enzyme Subunit Alpha, Mitochondrial; Long-Chain-3-Hydroxyacyl-CoA Dehydrogenase; Monolysocardiolipin Acyltransferase; Long-Chain 2-Enoyl-CoA HydRatase; 78 kDa Gastrin-Binding Protein; Gastrin-Binding Protein; HADH; Mitochondrial Long-Chain L-3-Hydroxyacyl-Coenzyme A (CoA) Dehydrogenase, Alpha Subunit; Mitochondrial Long-Chain 2-Enoyl-Coenzyme A (CoA) HydRatase, Alpha Subunit; 3-Ketoacyl-Coenzyme A (CoA) Thiolase, Alpha Subunit; Mitochondrial Trifunctional Enzyme, Alpha Subunit; 3-Oxoacyl-CoA Thiolase; EC 2.3.1.-; TP-ALPHA; TP-Alpha; ECHA
Immunogen	Recombinant protein of human HADHA

KD-Validated Anti-HADHA Mouse Monoclonal Antibody - Additional Information

Gene ID	3030
Other Names	Trifunctional enzyme subunit alpha, mitochondrial, 78 kDa gastrin-binding protein, Monolysocardiolipin acyltransferase, MLCL AT, 2.3.1.-, TP-alpha, Long-chain enoyl-CoA hydratase,

4.2.1.17, Long chain 3-hydroxyacyl-CoA dehydrogenase, 1.1.1.211, HADHA, HADH

KD-Validated Anti-HADHA Mouse Monoclonal Antibody - Protein Information

Name HADHA

Synonyms HADH

Function

Mitochondrial trifunctional enzyme catalyzes the last three of the four reactions of the mitochondrial beta-oxidation pathway (PubMed:1550553, PubMed:29915090, PubMed:30850536, PubMed:8135828, PubMed:31604922). The mitochondrial beta-oxidation pathway is the major energy-producing process in tissues and is performed through four consecutive reactions breaking down fatty acids into acetyl-CoA (PubMed:29915090). Among the enzymes involved in this pathway, the trifunctional enzyme exhibits specificity for long-chain fatty acids (PubMed:30850536, PubMed:31604922). Mitochondrial trifunctional enzyme is a heterotetrameric complex composed of two proteins, the trifunctional enzyme subunit alpha/HADHA described here carries the 2,3-enoyl-CoA hydratase and the 3-hydroxyacyl-CoA dehydrogenase activities while the trifunctional enzyme subunit beta/HADHB bears the 3-ketoacyl-CoA thiolase activity (PubMed:29915090, PubMed:30850536, PubMed:8135828). Independently of subunit beta, HADHA also exhibits a cardiolipin acyltransferase activity that participates in cardiolipin remodeling; cardiolipin is a major mitochondrial membrane phospholipid (PubMed:23152787, PubMed:31604922). HADHA may act downstream of Tafazzin/TAZ, that remodels monolysocardiolipin (MLCL) to a cardiolipin intermediate, and then HADHA may continue to remodel this species into mature tetralinoleoyl-cardiolipin (PubMed:31604922). Has also been proposed to act directly on MLCL; capable of acylating MLCL using different acyl-CoA substrates, with highest activity for oleoyl-CoA (PubMed:23152787).

Cellular Location

Mitochondrion. Mitochondrion inner membrane Note=Protein stability and association with mitochondrion inner membrane do not require HADHB.

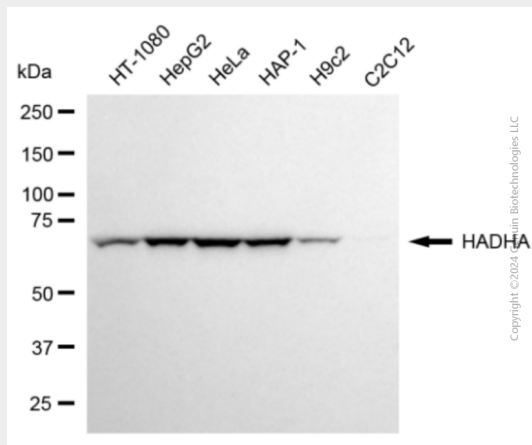
KD-Validated Anti-HADHA Mouse Monoclonal Antibody - Protocols

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

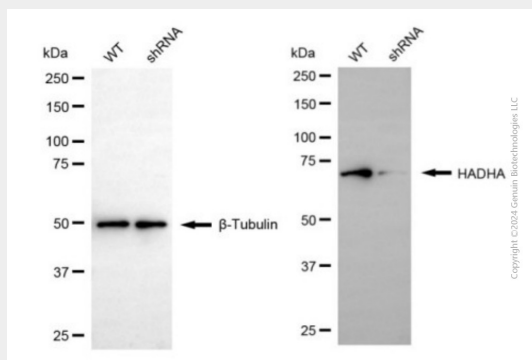
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)

- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-HADHA Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-HADHA antibody (Cat#AGI1958). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-HADHA antibody (Cat#AGI1958, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.



Western blotting analysis using anti-HADHA antibody (Cat#AGI1958). HADHA expression in wild type (WT) and HADHA shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-HADHA antibody (Cat#AGI1958, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.