

**HADHA Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP6882b****Specification**

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**HADHA Antibody (C-term) - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | <b>WB, IHC-P, FC,E</b> |
| Primary Accession | <a href="#">P40939</a> |
| Reactivity        | <b>Human</b>           |
| Host              | <b>Rabbit</b>          |
| Clonality         | <b>Polyclonal</b>      |
| Isotype           | <b>Rabbit IgG</b>      |
| Calculated MW     | <b>83000</b>           |
| Antigen Region    | <b>737-763</b>         |

**HADHA Antibody (C-term) - Additional Information****Gene ID** 3030**Other Names**

Trifunctional enzyme subunit alpha, mitochondrial, 78 kDa gastrin-binding protein, TP-alpha, Long-chain enoyl-CoA hydratase, Long chain 3-hydroxyacyl-CoA dehydrogenase, HADHA, HADH

**Target/Specificity**

This HADHA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 737-763 amino acids from the C-terminal region of human HADHA.

**Dilution**WB~~1:1000  
IHC-P~~1:10~50  
FC~~1:10~50**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

HADHA Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**HADHA Antibody (C-term) - 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](#)). 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](#)). 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 the subunit beta, the trifunctional enzyme subunit alpha/HADHA also has a monolysocardiolipin acyltransferase activity (PubMed:[23152787](#)). It acylates monolysocardiolipin into cardiolipin, a major mitochondrial membrane phospholipid which plays a key role in apoptosis and supports mitochondrial respiratory chain complexes in the generation of ATP (PubMed:[23152787](#)). Allows the acylation of monolysocardiolipin with different acyl-CoA substrates including oleoyl-CoA for which it displays the highest activity (PubMed:[23152787](#)).

## Cellular Location

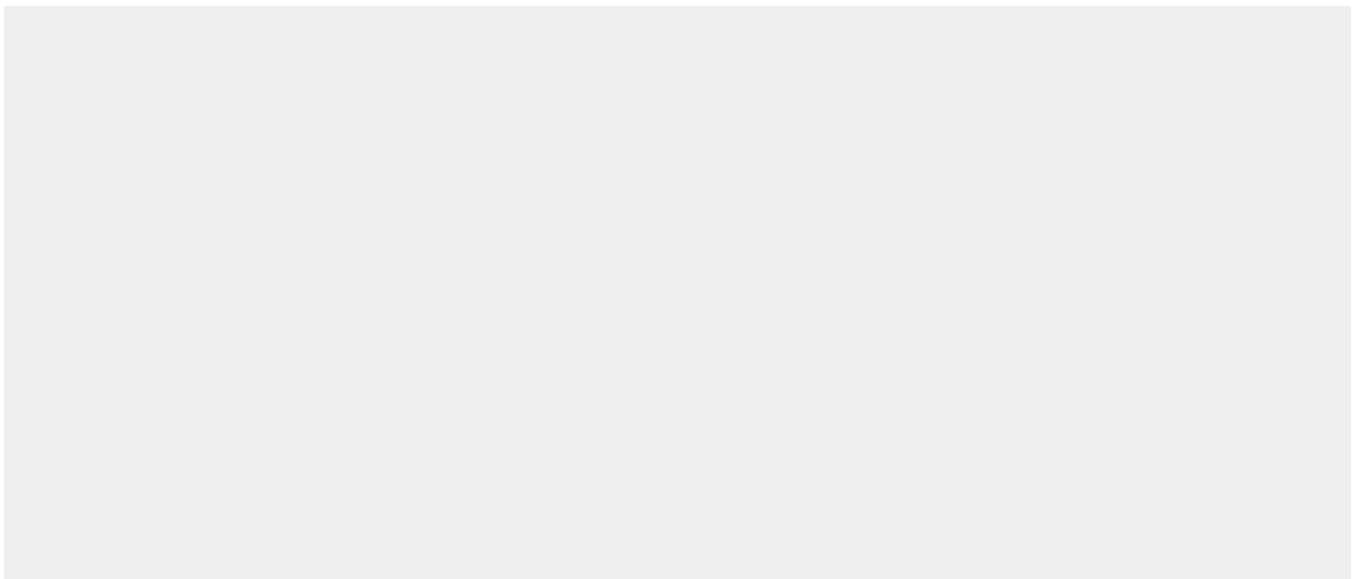
Mitochondrion. Mitochondrion inner membrane Note=Protein stability and association with mitochondrion inner membrane do not require HADHB.

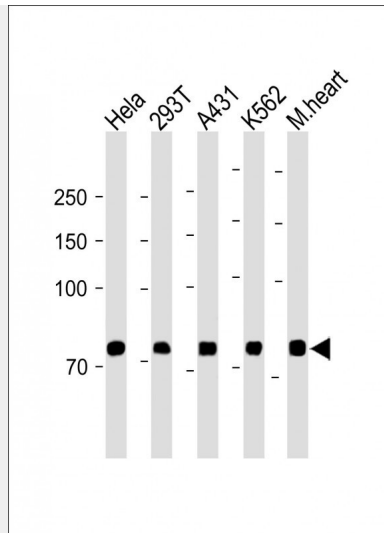
## HADHA Antibody (C-term) - Protocols

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

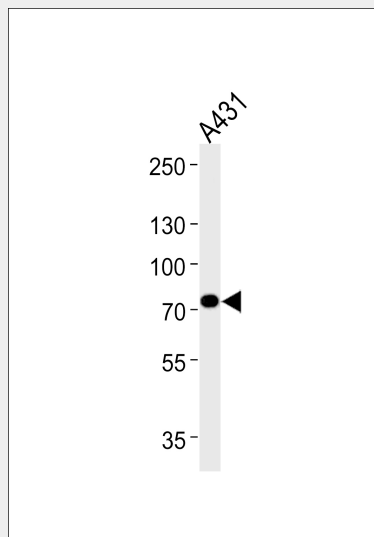
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## HADHA Antibody (C-term) - Images

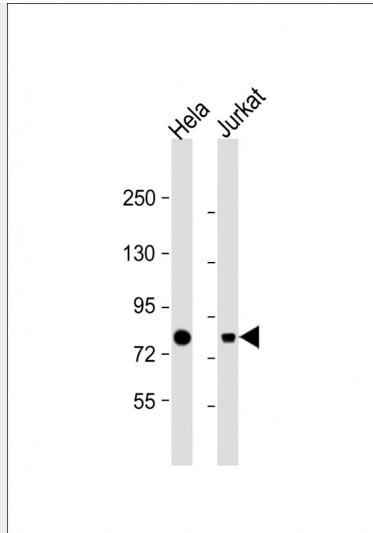




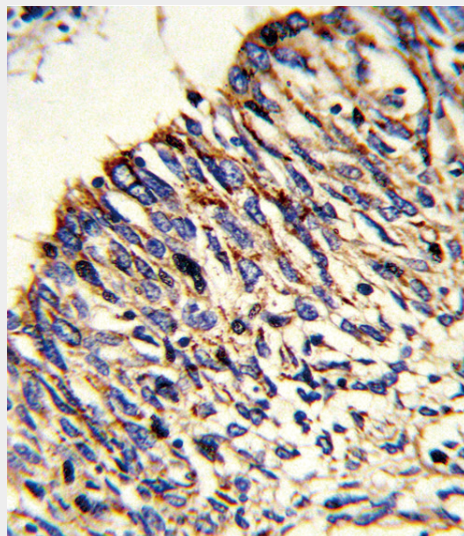
All lanes: Anti-HADHA Antibody (C-term) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: 293T whole cell lysate Lane 3: A431 whole cell lysate Lane 4: K562 whole cell lysate Lane 5: Mouse heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 83KDa Blocking/Dilution buffer: 5% NFDm/TBST.



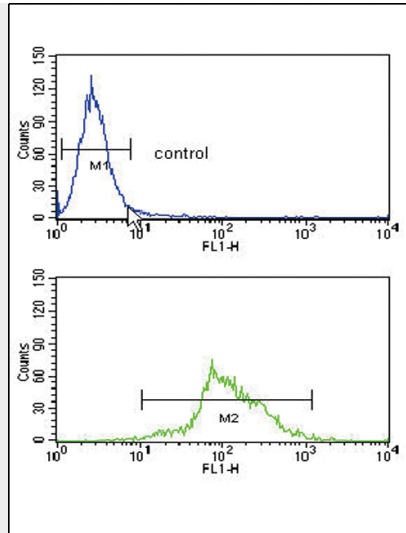
HADHA Antibody (C-term) (Cat.# AP6882b) western blot analysis in A431 cell line lysates (35ug/lane). This demonstrates the HADHA antibody detected the HADHA protein (arrow).



All lanes : Anti-HADHA Antibody (C-term) at 1:1000 dilution Lane 1: HeLa whole cell lysate Lane 2: Jurkat whole cell lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 83 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human lung carcinoma reacted with HADHA Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



HADHA Antibody (C-term) (Cat. #AP6882b) flow cytometry analysis of Ramos cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

#### **HADHA Antibody (C-term) - Background**

HADHA is the alpha subunit of the mitochondrial trifunctional protein, which catalyzes the last three steps of mitochondrial beta-oxidation of long chain fatty acids. The mitochondrial membrane-bound heterocomplex is composed of four alpha and four beta subunits, with the alpha subunit catalyzing the 3-hydroxyacyl-CoA dehydrogenase and enoyl-CoA hydratase activities.

#### **HADHA Antibody (C-term) - References**

Sims, H.F., et al., Proc. Natl. Acad. Sci. U.S.A. 92 (3), 841-845 (1995)