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UBIAD1 Antibody
Catalog # ASC11785

Specification

UBIAD1 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q9Y5Z9
Other Accession	NP_037451, 7019551
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 37 kDa** **Observed: 45 kDa KDa**
Application Notes	**UBIAD1 antibody can be used for detection of UBIAD1 by Western blot at 1 - 2 µg/ml. Antibody can also be used for Immunohistochemistry at 5 µg/mL. For Immunoflorescence start at 20 µg/mL.**

UBIAD1 Antibody - Additional Information

Gene ID **29914**

Target/Specificity
UBIAD1; UBIAD1 antibody is human, mouse and rat reactive.

Reconstitution & Storage
UBIAD1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
UBIAD1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

UBIAD1 Antibody - Protein Information

Name UBIAD1 {ECO:0000303|PubMed:20953171, ECO:0000312|HGNC:HGNC:30791}

Function
Prenyltransferase that mediates the formation of menaquinone- 4 (MK-4) and coenzyme Q10 (PubMed:20953171, PubMed:23374346). MK-4 is a vitamin K2 isoform present at high concentrations in the brain, kidney and pancreas, and is required for endothelial cell development (PubMed:20953171). Mediates the conversion of phylloquinone (PK) into MK-4, probably by cleaving the side chain of phylloquinone (PK) to release 2-methyl-1,4-naphthoquinone (menadione; K3) and then prenylating it with geranylgeranyl pyrophosphate (GGPP) to form MK-4 (PubMed:20953171). Also plays a

role in cardiovascular development independently of MK-4 biosynthesis, by acting as a coenzyme Q10 biosynthetic enzyme: coenzyme Q10, also named ubiquinone, plays an important antioxidant role in the cardiovascular system (PubMed:23374346). Mediates biosynthesis of coenzyme Q10 in the Golgi membrane, leading to protect cardiovascular tissues from NOS3/eNOS- dependent oxidative stress (PubMed:23374346).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein. Golgi apparatus membrane; Multi-pass membrane protein. Mitochondrion membrane; Multi-pass membrane protein. Cytoplasm. Nucleus

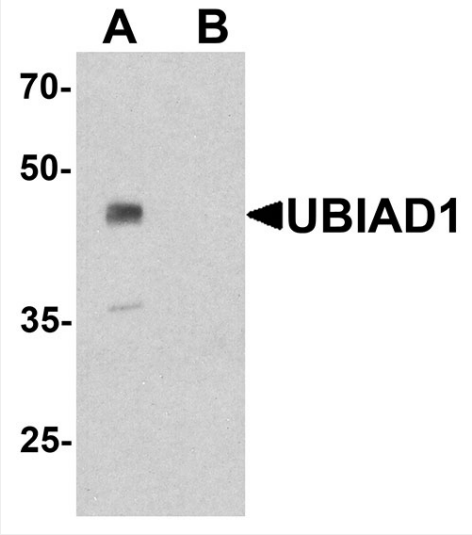
Tissue Location
Ubiquitously expressed.

UBIAD1 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 Cytomety
- Cell Culture

UBIAD1 Antibody - Images



Western blot analysis of UBIAD1 in mouse liver tissue lysate with UBIAD1 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.

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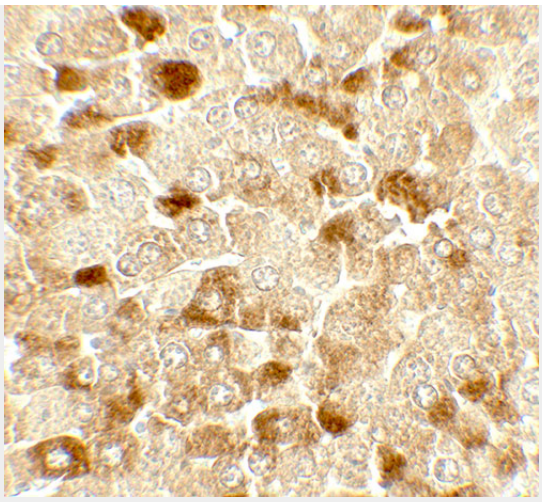
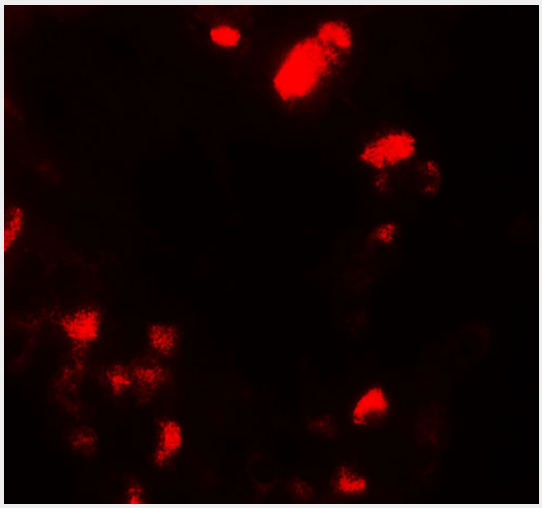


Immunohistochemistry of UBIAD1 in mouse liver tissue with UBIAD1 antibody at 5 µg/mL.



Immunofluorescence of UBIAD1 in mouse liver tissue with UBIAD1 antibody at 20 µg/mL.

UBIAD1 Antibody - Background

The UbiA prenyltransferase domain containing 1 (UBIAD1) protein , also known as TERE1, was initially identified as a down-regulated gene in transitional cell carcinoma of the bladder (1). Recently it has been shown to bind the cholesterol carrier APOE and modulate cellular cholesterol levels (2). Mutations in the UBIAD1 gene can cause Schnyder crystalline corneal dystrophy, an autosomal dominant disease characterized by progressive opacification of the cornea resulting from the local accumulation of lipids (3).

UBIAD1 Antibody - References

McGarvey TW, Nguyen T, Tomaszewski JE, et al. Isolation and characterization of TERE1 gene, a gene down-regulated in transitional cell carcinoma of the bladder. Oncogene 2001; 20:1042-51.
Fredericks WJ, McGarvey T, Wang H, et al. The bladder tumor suppressor protein TERE1 (UBIAD1) modulates cell cholesterol: implications for tumor progression. DNA Cell Biol. 2011; 30:851-64.
Orr A, Dube MP, Marcadier J, et al. Mutations in the UBIAD1 gene, encoding a potential prenyltransferase, are causal for Schnyder crystalline corneal dystrophy. PLoS One 2007; 2:e685.