10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

AMID / AIFM2 Antibody (N-Terminus)
Goat Polyclonal Antibody
Catalog # ALS12602

Specification

AMID / AIFM2 Antibody (N-Terminus) - Product Information

Application	**IHC**
Primary Accession	Q9BRQ8
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**41kDa KDa**

AMID / AIFM2 Antibody (N-Terminus) - Additional Information

Gene ID 84883

Other Names
Apoptosis-inducing factor 2, 1.-.-.-, Apoptosis-inducing factor homologous mitochondrion-associated inducer of death, Apoptosis-inducing factor-like mitochondrion-associated inducer of death, p53-responsive gene 3 protein, AIFM2, AMID, PRG3 {ECO:0000303|PubMed:12135761}

Target/Specificity
Human AIFM2 / AMID.

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
AMID / AIFM2 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

AMID / AIFM2 Antibody (N-Terminus) - Protein Information

Name AIFM2 {ECO:0000303|PubMed:26689472, ECO:0000312|HGNC:HGNC:21411}

Function
A NAD(P)H-dependent oxidoreductase that acts as a key inhibitor of ferroptosis (PubMed:31634899, PubMed:31634900, PubMed:35922516). At the plasma membrane, catalyzes reduction of coenzyme Q/ubiquinone-10 to ubiquinol-10, a lipophilic radical-trapping antioxidant that prevents lipid oxidative damage and consequently ferroptosis (PubMed:31634899, PubMed:31634900). Acts in parallel to GPX4 to suppress phospholipid peroxidation and ferroptosis (PubMed:31634899, PubMed:<a

href="http://www.uniprot.org/citations/31634900" target="_blank">31634900). This anti-ferroptotic function is independent of cellular glutathione levels (PubMed:31634899, PubMed:31634900). Also acts as a potent radical-trapping antioxidant by mediating warfarin-resistant vitamin K reduction in the canonical vitamin K cycle: catalyzes NAD(P)H-dependent reduction of vitamin K (phylloquinone, menaquinone-4 and menadione) to hydroquinone forms (PubMed:35922516). Hydroquinones act as potent radical-trapping antioxidants inhibitor of phospholipid peroxidation and ferroptosis (PubMed:35922516). May play a role in mitochondrial stress signaling (PubMed:26689472). Upon oxidative stress, associates with the lipid peroxidation end product 4-hydroxy-2-nonenal (HNE) forming a lipid adduct devoid of oxidoreductase activity, which then translocates from mitochondria into the nucleus triggering DNA damage and cell death (PubMed:26689472). Capable of DNA binding in a non-sequence specific way (PubMed:15958387).

Cellular Location
Lipid droplet. Cell membrane; Lipid-anchor Cytoplasm. Mitochondrion membrane. Nucleus

Tissue Location
Detected in most normal tissues as two transcripts of 1.8 and 4.0 kb in length, respectively. Highly expressed in heart, moderately in liver and skeletal muscles, and expressed at low levels in placenta, lung, kidney, and pancreas. Both transcripts expressed following p53/TP53 induction. The shorter 1.8 kb transcript seems to be the major transcript in EB1 colon cancer cells

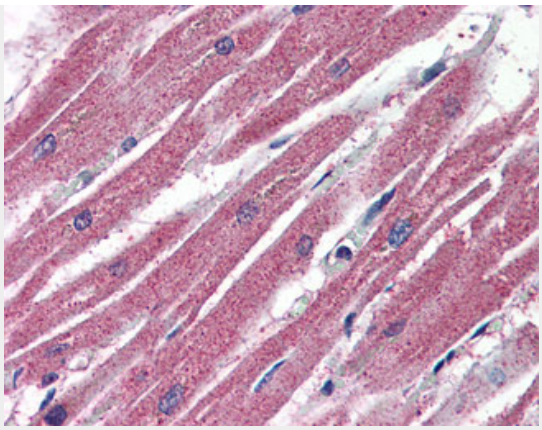
AMID / AIFM2 Antibody (N-Terminus) - Protocols

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

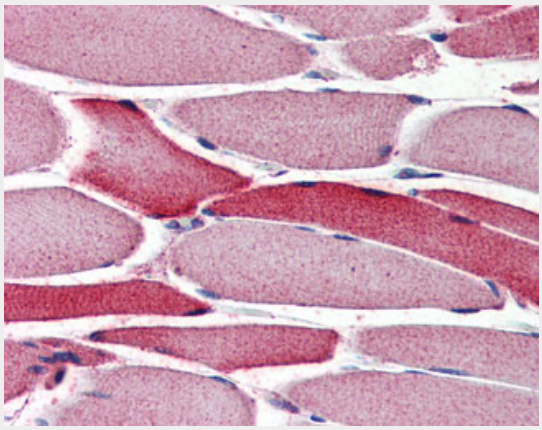
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

AMID / AIFM2 Antibody (N-Terminus) - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Anti-AIFM2 / AMID antibody IHC of human heart.



Anti-AIFM2 / AMID antibody IHC of human skeletal muscle.

AMID / AIFM2 Antibody (N-Terminus) - Background

Oxidoreductase, which may play a role in mediating a p53/TP53-dependent apoptosis response. Probable oxidoreductase that acts as a caspase-independent mitochondrial effector of apoptotic cell death. Binds to DNA in a sequence-independent manner. May contribute to genotoxin-induced growth arrest.

AMID / AIFM2 Antibody (N-Terminus) - References

Ohiro Y.,et al.FEBS Lett. 524:163-171(2002).
Wu M.,et al.J. Biol. Chem. 277:25617-25623(2002).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Deloukas P.,et al.Nature 429:375-381(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.