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

AMID Polyclonal Antibody
Catalog # AP68393

Specification

AMID Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IF**
Primary Accession	Q9BRQ8
Reactivity	**Human, Mouse, Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**

AMID Polyclonal Antibody - Additional Information

Gene ID 84883

Other Names
AIFM2; AMID; PRG3; Apoptosis-inducing factor 2; Apoptosis-inducing factor homologous mitochondrion-associated inducer of death; Apoptosis-inducing factor-like mitochondrion-associated inducer of death; p53-responsive gene 3 protein

Dilution
WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/40000. Not yet tested in other applications.
IHC-P~~N/A
IF~~1:50~200

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

AMID Polyclonal Antibody - 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, PubMed:39881208). 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 Polyclonal 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

AMID Polyclonal Antibody - Images

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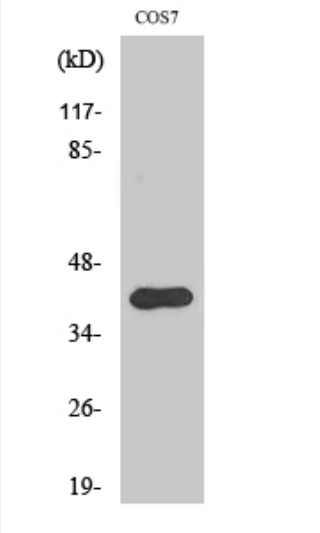
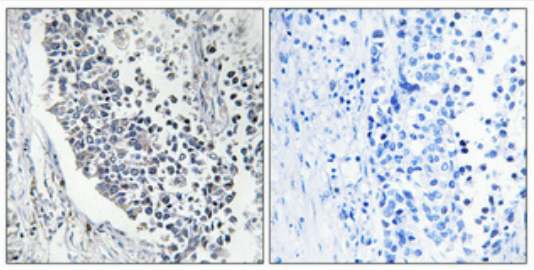
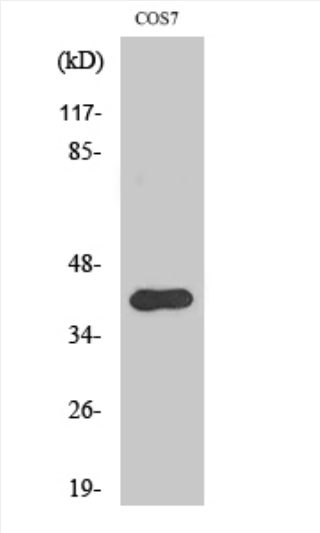


Western Blot analysis of various cells using AMID Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human lung cancer. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.



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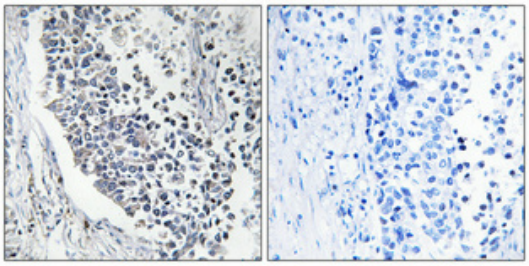

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AMID Polyclonal Antibody - Background

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.