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

Goat Anti-AIFM1 Antibody (C Terminus)

Purified Goat Polyclonal Antibody
Catalog # AF4215a

Specification

Goat Anti-AIFM1 Antibody (C Terminus) - Product Information

Application	**WB**
Primary Accession	O95831
Other Accession	26926(mouse), 83533(rat), NP_004199.1, NP_665811.1, NP_665812.1, NP_001124318.1
Reactivity	**Human**
Predicted	**Human, Mouse, Rat, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5**
Calculated MW	**66901**

Goat Anti-AIFM1 Antibody (C Terminus) - Additional Information

Gene ID 9131

Other Names
AIFM1; apoptosis-inducing factor, mitochondrion-associated, 1; AIF; CMTX4; COWCK; COXPD6; PDCD8; apoptosis-inducing factor 1, mitochondrial; programmed cell death 8 (apoptosis-inducing factor); striatal apoptosis-inducing factor

Format
Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.

Immunogen
Peptide with sequence C-NEVAKLFNIHED, from the C Terminus of the protein sequence according to NP_004199.1; NP_665811.1; NP_665812.1; NP_001124318.1.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-AIFM1 Antibody (C Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-AIFM1 Antibody (C Terminus) - Protein Information

Name AIFM1 (HGNC:8768)

Synonyms AIF, PDCD8

Function
Functions both as NADH oxidoreductase and as regulator of apoptosis (PubMed:17094969, PubMed:20362274, PubMed:23217327, PubMed:33168626). In response to apoptotic stimuli, it is released from the mitochondrion intermembrane space into the cytosol and to the nucleus, where it functions as a proapoptotic factor in a caspase- independent pathway (PubMed:20362274). Release into the cytoplasm is mediated upon binding to poly-ADP-ribose chains (By similarity). The soluble form (AIFsol) found in the nucleus induces 'parthanatos' i.e. caspase-independent fragmentation of chromosomal DNA (PubMed:20362274). Binds to DNA in a sequence-independent manner (PubMed:27178839). Interacts with EIF3G, and thereby inhibits the EIF3 machinery and protein synthesis, and activates caspase-7 to amplify apoptosis (PubMed:17094969). Plays a critical role in caspase-independent, pyknotic cell death in hydrogen peroxide-exposed cells (PubMed:19418225). In contrast, participates in normal mitochondrial metabolism. Plays an important role in the regulation of respiratory chain biogenesis by interacting with CHCHD4 and controlling CHCHD4 mitochondrial import (PubMed:26004228).

Cellular Location
Mitochondrion intermembrane space. Mitochondrion inner membrane. Cytoplasm. Nucleus. Cytoplasm, perinuclear region. Note=Proteolytic cleavage during or just after translocation into the mitochondrial intermembrane space (IMS) results in the formation of an inner-membrane-anchored mature form (AIFmit). During apoptosis, further proteolytic processing leads to a mature form, which is confined to the mitochondrial IMS in a soluble form (AIFsol). AIFsol is released to the cytoplasm in response to specific death signals, and translocated to the nucleus, where it induces nuclear apoptosis (PubMed:15775970). Release into the cytoplasm is mediated upon binding to poly-ADP-ribose chains (By similarity) Translocation into the nucleus is promoted by interaction with (auto- poly-ADP-ribosylated) processed form of PARP1 (PubMed:33168626) Colocalizes with EIF3G in the nucleus and perinuclear region (PubMed:17094969). {ECO:0000250|UniProtKB:Q9Z0X1, ECO:0000269|PubMed:15775970, ECO:0000269|PubMed:17094969, ECO:0000269|PubMed:33168626} [Isoform 4]: Mitochondrion. Cytoplasm, cytosol. Note=In pro-apoptotic conditions, is released from mitochondria to cytosol in a calpain/cathepsin-dependent manner.

Tissue Location
Expressed in all tested tissues (PubMed:16644725). Detected in muscle and skin fibroblasts (at protein level) (PubMed:23217327). Expressed in osteoblasts (at protein level) (PubMed:28842795). [Isoform 4]: Expressed in all tested tissues except brain.

Goat Anti-AIFM1 Antibody (C Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

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

- Flow Cytomety
- Cell Culture

Goat Anti-AIFM1 Antibody (C Terminus) - Images

AF4215a (0.01 µg/ml) staining of Jurkat lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-AIFM1 Antibody (C Terminus) - References

The enzymatic activity of apoptosis-inducing factor supports energy metabolism benefiting the growth and invasiveness of advanced prostate cancer cells. Lewis EM, Wilkinson AS, Jackson JS, Mehra R, Varambally S, Chinnaiyan AM, Wilkinson JC. The Journal of biological chemistry 2012 Dec 287 (52): 43862-75.