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

F1A alpha Antibody

Catalog # ASC10107

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9UK73
Other Accession	AAF05314, 6175869
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	70264
Conjugate	Unconjugated
Application Notes	F1Ab antibody can be used for detection of F1Ab by Western blot at 1 g/mL. An approximately 70 kDa band can be detected. Antibody can also be used for immunohistochemistry starting at 5 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	10116
Other Names	F1A alpha Antibody: F1AA, F1A-ALPHA, FEM1-beta, F1AA, KIAA0396, Protein fem-1 homolog B, FEM1b, fem-1 homolog b (C. elegans)
Target/Specificity	FEM1B;
Reconstitution & Storage	F1A alpha antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	F1A alpha Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FEM1B {ECO:0000303|PubMed:10623617, ECO:0000312|HGNC:HGNC:3649}
Function	Substrate-recognition component of a Cul2-RING (CRL2) E3 ubiquitin-protein ligase complex of the DesCEND (destruction via C-end degrons) pathway, which recognizes a C-degron located at the extreme C terminus of target proteins, leading to their ubiquitination and degradation (PubMed:29779948, PubMed:33398168, PubMed:33398170). The C- degron recognized by the DesCEND pathway is usually a motif of less than ten residues and can be present in full-length proteins, truncated proteins or proteolytically cleaved forms (PubMed:29779948, PubMed:33398168, PubMed:33398170). The CRL2(FEM1B) complex specifically recognizes proteins ending with

	-Gly-Leu-Asp-Arg, such as CDK5R1, leading to their ubiquitination and degradation (PubMed:33398168, PubMed:33398170). Also acts as a regulator of the reductive stress response by mediating ubiquitination of reduced FNIP1: in response to reductive stress, the CRL2(FEM1B) complex specifically recognizes a conserved Cys degron in FNIP1 when this degron is reduced, leading to FNIP1 degradation and subsequent activation of mitochondria to recalibrate reactive oxygen species (ROS) (By similarity). Mechanistically, recognizes and binds reduced FNIP1 through two interface zinc ions, which act as a molecular glue that recruit reduced FNIP1 to FEM1B (By similarity). Promotes ubiquitination of GLI1, suppressing GLI1 transcriptional activator activity (PubMed:24076122). Promotes ubiquitination and degradation of ANKRD37 (By similarity). Promotes ubiquitination and degradation of SLBP (PubMed:28118078). Involved in apoptosis by acting as a death receptor-associated protein that mediates apoptosis (PubMed:10542291). Also involved in glucose homeostasis in pancreatic islet (By similarity). May also act as an adapter/mediator in replication stress-induced signaling that leads to the activation of CHEK1 (PubMed:19330022).
Cellular Location	Cytoplasm. Nucleus Note=In the nucleus, the protein level increased slightly after camptothecin (CPT) treatment (PubMed:19330022). Associated with chromatin (PubMed:19330022).
Tissue Location	Widely expressed (PubMed:10542291). Highly expressed in testis (PubMed:10542291). Weakly expressed in other tissues (PubMed:10542291).

Background

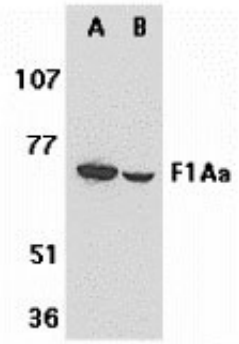
F1A alpha Antibody: Fas and tumor necrosis factor receptor 1 (TNFR1) are two prototype members in the death receptor family. A novel protein that associates with the intracellular domains of Fas and TNFR1 was recently identified and designated F1Aalpha and FEM1β. F1Aalpha/FEM1β is the homologue of C. elegans sex determining protein FEM-1. FEM-1/F1Aalpha is cleaved by CED-3 and caspase. FEM-1/F1Aalpha associates with CED-4 and its mammalian homologue Apaf-1. Overexpression of F1Aalpha induces apoptosis. F1Aalpha is therefore a novel member of the death receptor associated protein that mediates apoptosis. F1Aalpha is expressed in a variety of human and mouse tissues.

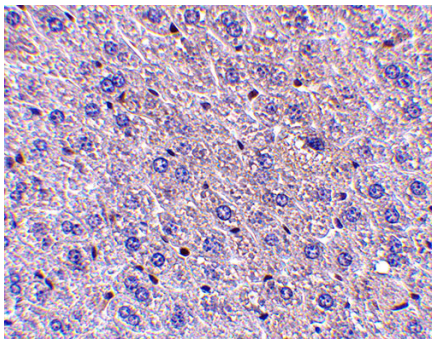
References

Chan SL, Tan KO, Zhang L, Yee KS , Ronca F, Chan MY, Yu VC. F1Aα, a death receptor-binding protein homologous to the Caenorhabditis elegans sex-determining protein, FEM-1, is a caspase substrate that mediates apoptosis. J Biol Chem. 1999;274(45):32461-8.
Ventura-Holman T, Maher JF. Sequence, organization, and expression of the human FEM1B gene. Biochem Biophys Res Commun 2000;267(1):317-20
Chan SL, Yee KS , Tan KM, Yu VC. The Caenorhabditis elegans sex determination protein FEM-1 is a CED-3 substrate that associates with CED-4 and mediates apoptosis in mammalian cells. J Biol Chem. 2000;275(24):17925-8. (WD0102)

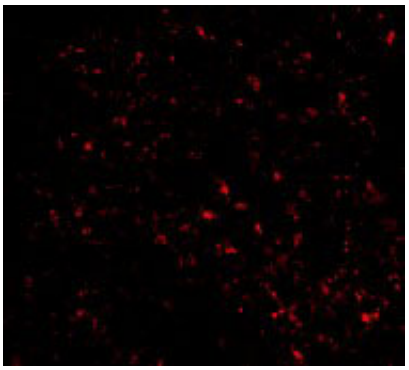
Images

Western blot analysis of F1A alpha in mouse (A) and rat (B) liver tissue lysates with F1A alpha antibody at 1 µg/mL.





Immunohistochemistry of F1Aα in mouse liver tissue with F1Aα antibody at 5 µg/mL.



Immunofluorescence of F1A alpha in Mouse Liver cells with F1A alpha antibody at 20 µg/mL.

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