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FAM120A Antibody [Knockdown Validated]

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8475b

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	Q9NZB2
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Clone Names	1501CT803.19.85.5
Calculated MW	121888

Additional Information

Gene ID	23196
Other Names	Constitutive coactivator of PPAR-gamma-like protein 1, Oxidative stress-associated Src activator, Protein FAM120A, FAM120A, C9orf10, KIAA0183, OSSA
Target/Specificity	This FAM120A antibody is generated from a mouse immunized with a recombinant protein of human FAM120A.
Dilution	WB~~1:4000 IHC-P~~1:100~500 IF~~1:25 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FAM120A Antibody [Knockdown Validated] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	FAM120A
Function	Membrane-associated scaffold protein that participates in multiple cellular processes, including oxidative stress-induced survival signaling, RNA trafficking and translational regulation, and the modulation of membrane

signaling through its interaction with RNA- binding proteins and lipid raft-associated domains (PubMed:19015244). Functions as a regulator of activation of several intracellular kinases, including SRC, FAK, and PI3K, following oxidative stress (PubMed:19015244). Promotes RNA splicing and stability of lipogenic enzymes (PubMed:37595559). Mechanistically, recruits the lipogenic transcription factor SREBP1 at active promoters, thereby bridging the newly transcribed lipogenic genes from RNA polymerase II to the SRSF1 and U1-70K-containing RNA-splicing machinery (PubMed:37595559). Associates with key proteins of the NLRP3 inflammasome pathway and subsequently inhibits NLRP3 inflammasome activation (PubMed:40250624). Sequesters a subset of AGO2-bound mRNAs from miRNA-mediated silencing by binding to poly(G)-rich motifs in their 3'-UTR independently of the AGO2 binding site, likely by preventing recruitment of miRISC effectors (By similarity).

Cellular Location

Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Note=Translocates from the cytosol to plasma membrane after UV irradiation.

Tissue Location

Widely expressed (PubMed:14585507). In gastric mucosa, detected in the bottom region of the foveolar epithelium (at protein level) (PubMed:19015244).

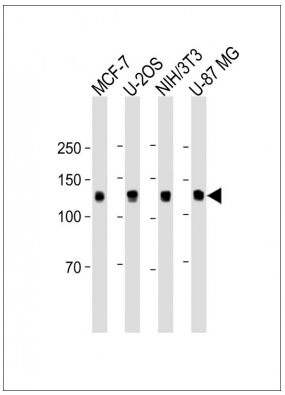
Background

May participate in mRNA transport in the cytoplasm (By similarity). Critical component of the oxidative stress-induced survival signaling. Activates src family kinases and acts as a scaffolding protein enabling src family kinases to phosphorylate and activate PI3-kinase. Binds RNA and promotes the secretion of IGF-II. May play a pivotal role in the progression of scirrhous- type gastric cancer by supporting cancer cell survival in environments with various oxidative stresses.

References

Brahmbhatt S.B.,et al.Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
Humphray S.J.,et al.Nature 429:369-374(2004).
Nagase T.,et al.DNA Res. 3:17-24(1996).
Ohara O.,et al.Submitted (JUN-2005) to the EMBL/GenBank/DDBJ databases.
Holden S.,et al.Gene 318:149-161(2003).

Images

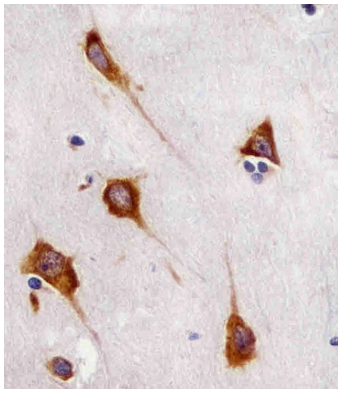


All lanes: Anti-FAM120A Antibody at 1:1000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: U-2OS whole cell lysate Lane 3: NIH/3T3 whole cell lysate Lane 4: U-87 MG whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution. Observed band size: 135 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

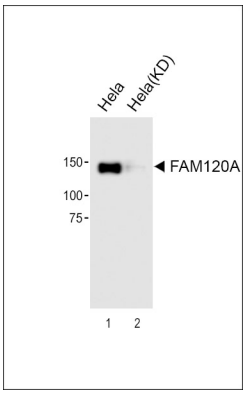
Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized



HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling FAM120A with AM8475b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NA166821) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on HeLa cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (PD18466410) at 1/100 dilution (red).The nuclear counter stain is DAPI (blue).



AM8475b staining FAM120A in human brain sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



All lanes : Anti-FAM120A Antibody at 1:2000 dilution Lane 1: Hela Lane 2: Hela-Knockdown Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG, (H+L), Peroxidase conjugated (ASP1613) at 1/8000 dilution.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.