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TUFM Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2918a

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	P49411
Other Accession	P85834, Q8BFR5, P49410
Reactivity	Human
Predicted	Bovine, Mouse, Rat, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20864
Calculated MW	49875
Antigen Region	75-104

Additional Information

Gene ID	7284
Other Names	Elongation factor Tu, mitochondrial, EF-Tu, P43, TUFM
Target/Specificity	This TUFM antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 75-104 amino acids from the N-terminal region of human TUFM.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation 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	TUFM Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TUFM
Function	GTP hydrolase that promotes the GTP-dependent binding of aminoacyl-tRNA to the A-site of ribosomes during protein biosynthesis.

Participates in mitochondrial translation (By similarity). Also plays a role in the regulation of autophagy and innate immunity (PubMed:22749352, PubMed:28407488). Recruits ATG5-ATG12 and NLRX1 at mitochondria and serves as a checkpoint of the RIGI-MAVS pathway (PubMed:28407488). In turn, inhibits RLR-mediated type I interferon while promoting autophagy (PubMed:22749352).

Cellular Location Mitochondrion matrix

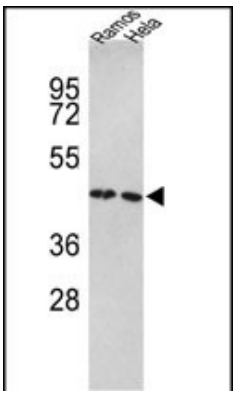
Background

TUFM is a protein which participates in protein translation in mitochondria. This protein promotes the GTP-dependent binding of aminoacyl-tRNA to the A-site of ribosomes during protein biosynthesis.

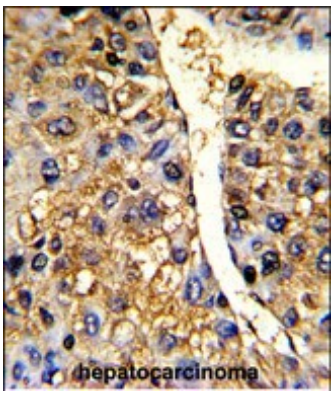
References

Valente,L., et.al., Biochim. Biophys. Acta 1792 (8), 791-795 (2009)
Bogenhagen,D.F., et.al., J. Biol. Chem. 283 (6), 3665-3675 (2008)

Images

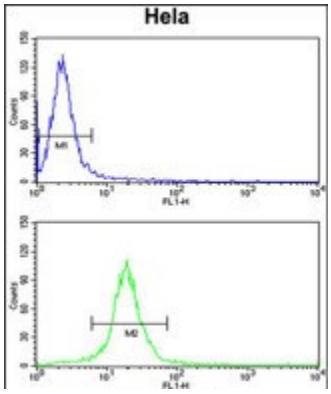


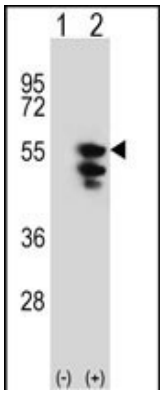
Western blot analysis of TUFM Antibody (N-term) (Cat. #AP2918a) in Ramos, Hela cell line lysates (35ug/lane). TUFM (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with TUFM Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

TUFM Antibody (N-term) (Cat.#AP2918a) flow cytometry analysis of Hela cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.





Western blot analysis of TUFM (arrow) using rabbit polyclonal TUFM Antibody (N-term) (Cat. #AP2918a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the TUFM gene.

Citations

- TUFM downregulation induces epithelial-mesenchymal transition and invasion in lung cancer cells via a mechanism involving AMPK-GSK3β signaling.

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