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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
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

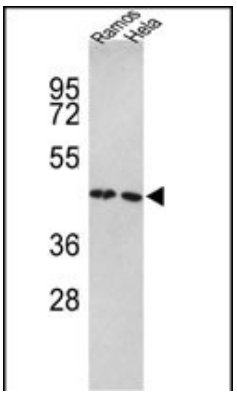
Background

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.

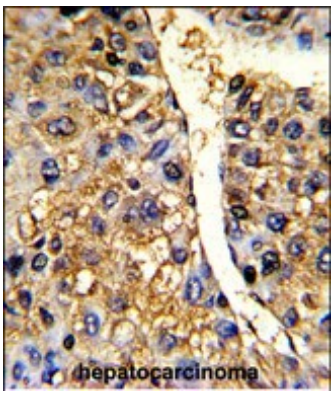
References

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

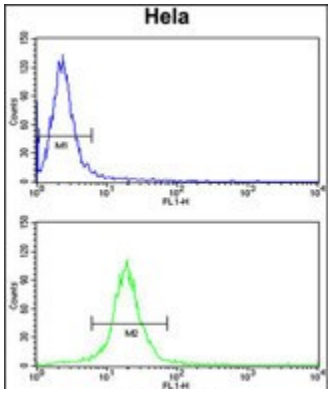


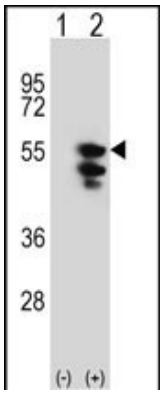
Western blot analysis of TUFM Antibody (N-term) (Cat. #AP2918a) in Ramos, Hela cell line lysates (35ug/lane). TUFM (arrow) was detected using the purified Pab.



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.