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IMMT Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2931c

Product Information

Application	WB, IHC-P, FC, E
Primary Accession	Q16891
Other Accession	Q3KR86, Q8CAQ8
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB20815
Calculated MW	83678
Antigen Region	438-467

Additional Information

Gene ID	10989
Other Names	MICOS complex subunit MIC60, Cell proliferation-inducing gene 4/52 protein, Mitochondrial inner membrane protein, Mitofilin, p87/89, IMMT, HMP, MIC60, MINOS2
Target/Specificity	This IMMT antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 438-467 amino acids from the Central region of human IMMT.
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	IMMT Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IMMT

Synonyms	HMP, MIC60, MINOS2
Function	Component of the MICOS complex, a large protein complex of the mitochondrial inner membrane that plays crucial roles in the maintenance of crista junctions, inner membrane architecture, and formation of contact sites to the outer membrane (PubMed:22114354, PubMed:25781180, PubMed:32567732, PubMed:33130824). Plays an important role in the maintenance of the MICOS complex stability and the mitochondrial cristae morphology (PubMed:22114354, PubMed:25781180, PubMed:32567732, PubMed:33130824).
Cellular Location	Mitochondrion inner membrane; Single-pass membrane protein. Mitochondrion

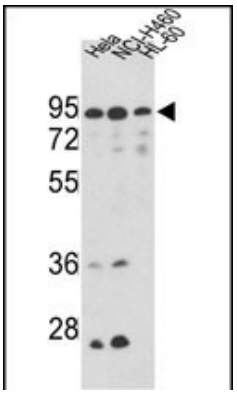
Background

Mitochondria are the center of cellular energy production and essential metabolic reactions. As double membrane-bound organelles, mitochondria from different species, tissues, and metabolic states are highly polymorphic in nature, yet exhibit common structural features. The ultrastructural variations in mitochondrial architecture occur mainly due to the differences in the amount and shape of cristae. Abundant cristae are found in mitochondria from tissues where energy demand is high. Analysis of the human heart mitochondrial proteome shows that mitofilin is one of the most abundant mitochondrial proteins. It appears to play an important role in the maintenance of cristae morphology.

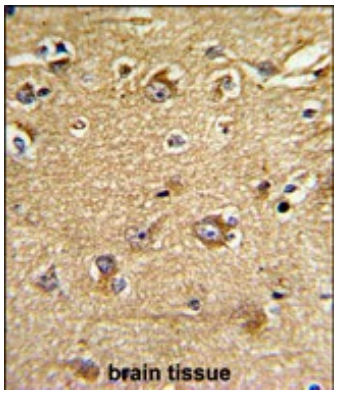
References

Bernert,G., et.al., Proteomics 2 (12), 1752-1757 (2002)

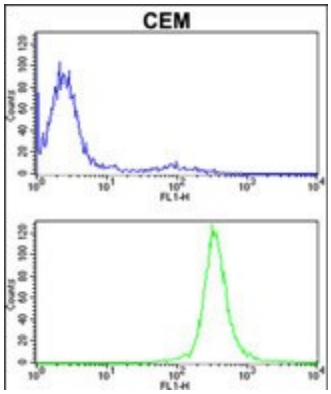
Images



Western blot analysis of IMMT Antibody (Center) (Cat. #AP2931c) in Hela, NCI-H460, CEM cell line lysates (35ug/lane). IMMT (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human brain tissue reacted with IMMT Antibody (Center), 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.



IMMT Antibody (Center) (Cat. #AP2931c) flow cytometric analysis of CEM cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Rapid degradation of mutant SLC25A46 by the ubiquitin-proteasome system results in MFN1/2 mediated hyperfusion of mitochondria.