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MTP18 Rabbit pAb

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Catalog # AP54306

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UDX5
Reactivity	Rat
Predicted	Pig, Dog, Human, Mouse, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	18010
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MTP18
Epitope Specificity	41-140/166
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Mitochondrion inner membrane; Multi-pass membrane protein (Probable).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	MTP18 is a mitochondrial protein and downstream target of the phosphatidylinositol 3-kinase (see PIK3CA, MIM 171834) signaling pathway that plays a role in cell viability and mitochondrial dynamics (Tondera et al., 2004 [PubMed 15155745]).[supplied by OMIM, Mar 2008]

Additional Information

Gene ID	51537
Other Names	Mitochondrial fission process protein 1, Mitochondrial 18 kDa protein, MTP18, MTFP1, MTP18
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

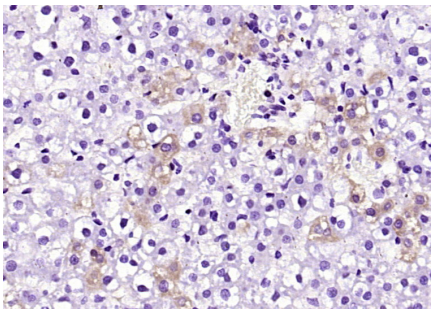
Name	MTFP1
Synonyms	MTP18

Function	Plays a role in the regulation of mitochondrial morphology (PubMed:15155745, PubMed:15985469). Inhibits mitochondrial fusion by creating a non-fusogenic lipid environment which affects OPA1 oligomerization and its subsequent capacity to drive fusion (PubMed:38851188). This prevents defective inner mitochondrial membrane (IMM) subdomains from fusing with other mitochondria, facilitating their segregation into small MTFP1-enriched mitochondria (SMEM) which are targeted for autophagic degradation (PubMed:38851188, PubMed:41398051). This IMM quality control mechanism controls mitochondrial DNA levels (PubMed:38851188).
Cellular Location	Mitochondrion inner membrane; Multi-pass membrane protein. Note=Assembles into discrete subdomains known as small MTFP1-enriched mitochondria (SMEM).

Background

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Images



Paraformaldehyde-fixed, paraffin embedded (rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MTP18) Polyclonal Antibody, Unconjugated (AP54306) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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