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SPATA18 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13960A

Product Information

Application	WB, IHC-P, E
Primary Accession	Q8TC71
Other Accession	NP_660306.1
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB27204
Calculated MW	61109
Antigen Region	92-120

Additional Information

Gene ID	132671
Other Names	Mitochondria-eating protein, Spermatogenesis-associated protein 18, SPATA18, MIEAP
Target/Specificity	This SPATA18 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 92-120 amino acids from the N-terminal region of human SPATA18.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	SPATA18 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SPATA18
Synonyms	MIEAP
Function	Key regulator of mitochondrial quality that mediates the repairing or

degradation of unhealthy mitochondria in response to mitochondrial damage (PubMed:21264221, PubMed:21264228, PubMed:22292033, PubMed:22532927). Mediator of mitochondrial protein catabolic process (also named MALM) by mediating the degradation of damaged proteins inside mitochondria by promoting the accumulation in the mitochondrial matrix of hydrolases that are characteristic of the lysosomal lumen (PubMed:21264221, PubMed:21264228, PubMed:22292033, PubMed:22532927). Also involved in mitochondrion degradation of damaged mitochondria by promoting the formation of vacuole-like structures (named MIV), which engulf and degrade unhealthy mitochondria by accumulating lysosomes (PubMed:21264228). The physical interaction of SPATA18/MIEAP, BNIP3 and BNIP3L/NIX at the mitochondrial outer membrane regulates the opening of a pore in the mitochondrial double membrane in order to mediate the translocation of lysosomal proteins from the cytoplasm to the mitochondrial matrix (PubMed:22292033). Binds cardiolipin (PubMed:38322995). May form molecular condensates (non- membrane-bounded organelles) within mitochondria that compartmentalize and promote cardiolipin metabolism (PubMed:38322995).

Cellular Location

Cytoplasm, cytosol Mitochondrion outer membrane. Mitochondrion matrix Note=Localizes to the cytosol under normal conditions (PubMed:21264228, PubMed:22532927). Relocalizes to mitochondrion outer membrane following cellular stress. May form molecular condensates in the mitochondrial matrix (PubMed:38322995). Colocalizes with BNIP3 and BNIP3L at the mitochondrion outer membrane (PubMed:22292033) [Isoform 2]: Cytoplasm, cytosol. Mitochondrion matrix. Note=Appears to predominantly localize to the mitochondrial matrix following induction of MALM (mitochondrial protein catabolic process).

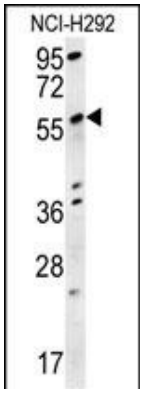
Background

Potential role in spermatogenesis, especially in cell differentiation from late elongate spematids to mature spermatozoa (By similarity).

References

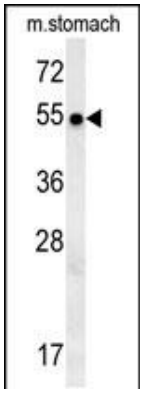
Zemunik, T., et al. Croat. Med. J. 50(1):23-33(2009)
Kaindl, A.M., et al. Hum. Mutat. 26(3):279-280(2005)

Images

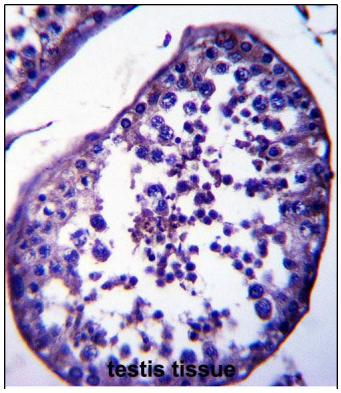


SPATA18 Antibody (N-term) (Cat. #AP13960a) western blot analysis in NCI-H292 cell line lysates (15ug/lane).This demonstrates the SPATA18 antibody detected SPATA18 protein (arrow).

SPATA18 Antibody (N-term) (Cat. #AP13960a) western blot analysis in mouse stomach tissue lysates



(15ug/lane).This demonstrates the SPATA18 antibody detected SPATA18 protein (arrow).



SPATA18 Antibody (N-term) (Cat. #AP13960a)immunohistochemistry analysis in formalin fixed and paraffin embedded human testis tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of SPATA18 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Citations

- Ebselen alleviates testicular pathology in mice with Zika virus infection and prevents its sexual transmission.

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