

# **SPATA18 / MIEAP Antibody (N-Terminus)**

Chicken Polyclonal Antibody Catalog # ALS15886

## **Specification**

# SPATA18 / MIEAP Antibody (N-Terminus) - Product Information

Application WB
Primary Accession OSTC71

Reactivity Human, Mouse, Rat

Host Chicken
Clonality Polyclonal
Calculated MW 61kDa KDa

## SPATA18 / MIEAP Antibody (N-Terminus) - Additional Information

### Gene ID 132671

#### **Other Names**

Mitochondria-eating protein, Spermatogenesis-associated protein 18, SPATA18, MIEAP

# Target/Specificity

Human SPATA18. At least three isoforms of SPATA18 are known to exist; this antibody will detect the two longest isoforms. SPATA18 antibody is predicted to not cross-react with other SPATA family members.

# **Reconstitution & Storage**

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

#### **Precautions**

SPATA18 / MIEAP Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

#### SPATA18 / MIEAP Antibody (N-Terminus) - 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. 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. 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. 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



Tel: 858.875.1900 Fax: 858.875.1999

lysosomal proteins from the cytoplasm to the mitochondrial matrix.

#### **Cellular Location**

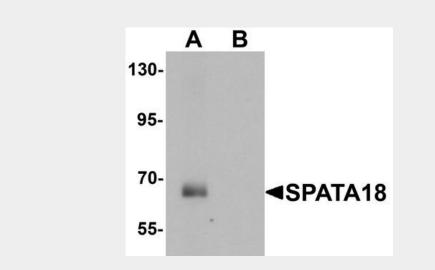
Cytoplasm. Mitochondrion outer membrane Note=Localizes to the cytoplasm under normal conditions (PubMed:21264228). Relocalizes to mitochondrion outer membrane following cellular stress. Colocalizes with BNIP3 and BNIP3L at the mitochondrion outer membrane (PubMed:22292033)

#### SPATA18 / MIEAP Antibody (N-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# SPATA18 / MIEAP Antibody (N-Terminus) - Images

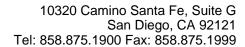


Western blot analysis of SPATA18 in rat lung tissue lysate with SPATA18 antibody at 1 ug/ml in...

# SPATA18 / MIEAP Antibody (N-Terminus) - Background

Key regulator of mitochondrial quality that mediates the repairing or degradation of unhealthy mitochondria in response to mitochondrial damage. 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. 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. 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.

## SPATA18 / MIEAP Antibody (N-Terminus) - References





Miyamoto Y.,et al.PLoS ONE 6:E16054-E16054(2011). Ota T.,et al.Nat. Genet. 36:40-45(2004). Hillier L.W.,et al.Nature 434:724-731(2005). Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases. Bornstein C.,et al.Mol. Cell. Biol. 31:1679-1689(2011).