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Mimitin Antibody
Catalog # ASC10998

Specification

Mimitin Antibody - Product Information

Application	**WB, IF, E**
Primary Accession	Q8N183
Other Accession	NP_777549, 29789409
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**Mimitin antibody can be used for detection of Mimitin by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunoflourescence starting at 20 µg/mL. For immunofluorescence start at 20 µg/mL.**

Mimitin Antibody - Additional Information

Gene ID	**91942**

Target/Specificity
NDUFAF2;

Reconstitution & Storage
Mimitin antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
Mimitin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Mimitin Antibody - Protein Information

Name NDUFAF2

Synonyms NDUFA12L

Function
Acts as a molecular chaperone for mitochondrial complex I assembly (PubMed:16200211, PubMed:19384974). Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone (PubMed:16200211, PubMed:27626371). Is involved in the initial steps of cilia formation, including removal of CP110 from the mother centrioles, docking of membrane vesicles to the mother centrioles, and establishment of the transition zone

(PubMed:38949024).

Cellular Location
Mitochondrion.

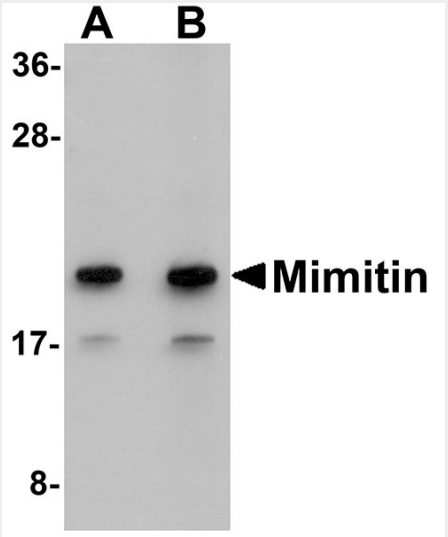
Tissue Location
Highly expressed in ESCC cells. Also expressed in heart, skeletal muscle, liver, and in fibroblasts

Mimitin Antibody - Protocols

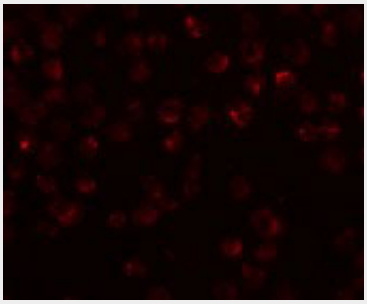
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mimitin Antibody - Images



Western blot analysis of Mimitin in Raji cell lysate with Mimitin antibody at (A) 1 and (B) 2 µg/mL.



Immunofluorescence of Mimitin in Raji cells with Mimitin antibody at 20 µg/mL.

Mimitin Antibody - Background

Mimitin Antibody: Mimitin, a small mitochondrial protein, whose transcription is directly stimulated by c-Myc, is highly expressed in 80% of esophageal squamous cell carcinomas (ESCC). Suppression of Mimitin expression by RNA interference had no effect in cancerous cell lines such as human cervical carcinoma or hepatocarcinoma cell lines, but caused a decrease in cell proliferation in human glioblastoma, embryonic lung fibroblastic cells, and ESCC, suggesting Mimitin may play a special role in these types of cells. Mimitin expression is also regulated by MAPK kinases and IL-1, but not through the NF-κB-related pathway. It will interact with the microtubular protein MAP1S and can affect the activities of caspase-3 and -7 in cells stimulated to develop apoptosis. Other experiments suggest that Mimitin also acts as a molecular chaperone for the assembly of the mitochondrial complex I.

Mimitin Antibody - References

Tsuneoka M, Teye K, Arima M, et al. A novel Myc-target gene, mimitin, that is involved in cell proliferation of esophageal squamous cell carcinoma. J. Biol. Chem.2005; 280:19977-85.
Wegrzyn P, Yarwood SJ, Fiegler N, et al. Mimitin - a novel cytokine-regulated mitochondrial protein. BMC Cell Biol.2009; 10:23.
Ogilvie I, Kennaway NG, and Shoubridge EA. A molecular chaperone for mitochondrial complex I assembly is mutated in a progressive encephalopathy. J. Clin. Invest.2005; 115:2784-92.