

**Mimitin Antibody**  
Catalog # ASC10998**Specification****Mimitin Antibody - Product Information**

Application	WB, IF
Primary Accession	<a href="#">Q8N183</a>
Other Accession	<a href="#">NP_777549</a> , <a href="#">29789409</a>
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 immunofluorescence 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°C for three months and -20°C, 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](http://www.uniprot.org/citations/16200211), PubMed:[19384974](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/16200211), PubMed:[27626371](http://www.uniprot.org/citations/27626371)).

**Cellular Location**

Mitochondrion.

#### Tissue Location

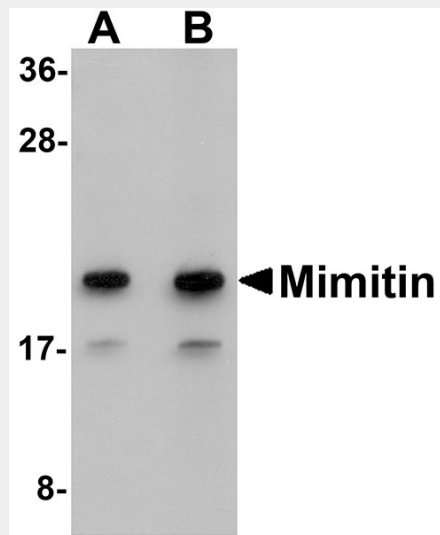
Highly expressed in ESCC cells. Also expressed in heart, skeletal muscle, liver, and in fibroblasts

#### Mimitin Antibody - Protocols

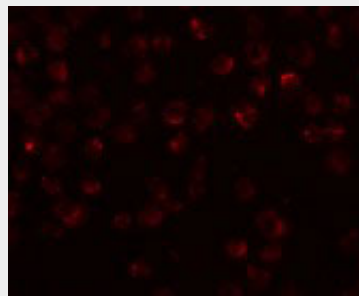
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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- $\kappa$ B-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 Shoubbridge EA. A molecular chaperone for mitochondrial complex I assembly is mutated in a progressive encephalopathy. *J. Clin. Invest.* 2005; 115:2784-92.