

## MOLECULAR BIOLOGY

Premium edit

We looked for the effects of modulation of mimitin expression and for mimitin binding partners. Our previous studies on the effects of proinflammatory cytokines on mitochondrial function have shown that Proinflammation these cytokines change modulate the expression of several mitochondrial proteins engaging participating in ATP production-generation, as it was shown our previous studies. We also found that in primary cultures of rat hepatocytes, Cytokines such as interleukin (IL)-1 and IL-6 are known as for affecting regulate energy metabolism and the function of mitochondrial function by significantly inhibiting of ATP production and utilization in a timely and dose-related dependent manner, was shown our previous studies of primary cultures of rat hepatocytes. To investigate these effects further, in this study, we aimed to determine whether cytokines modulate the expression of the novel mitochondrial protein mimitin and its binding partners. In this studies we We found that witness-when HepG2 cells were exposed to IL-1 and IL-6 for 12 h and 18 h, respectively, increase of the levels of the mimitin transcript and mimitin protein increased after 12 and 18 h of HepG2 cells exposed to IL-1 and IL-6. These cytokines also catalyzed stimulated the expression of the luciferase reporter gene under the control by of the mimitin gene promoter. It should conclude These observations indicate that both the cytokines affect regulate mimitin gene expression in at the transcriptional level.

**Comment [A1]:** The objective of the study should ideally come after the background information is presented. I have therefore moved this statement to after the next two sentences that set context for the study.

**Comment [A2]:** Please provide a citation here.

**Comment [A3]:** While the word "engage" can be used to mean "involve" in most contexts, in this field of study, it is not conventional to use it in this sense. "Participate" or "involve" are better options.

**Comment [A4]:** Please provide a citation here as well.

**Comment [A5]:** I have revised this sentence so as to establish a connection between the previous studies and this one.

The original sentence did not describe what mimitin was, because of which the reader may not have understood how this study is relevant to the effects of cytokines on mitochondria.

A basic online literature search indicates that mimitin is a newly discovered mitochondrial protein. I have added this information to establish the relevance of this study.

**Comment [A6]:** "Catalyzed" is typically used only in reference to enzyme action. Its use in this context is not appropriate. Please let me know if my revision does not convey your intended meaning.

Source: [Mimitin – a novel cytokine-regulated mitochondrial protein](#) by Paulina Wegrzyn, Stephen J Yarwood, Nathalie Fiegler, et al. used under [CC-BY](#).