**MOLECULAR BIOLOGY**

**Advanced Edit**

The objective of our study was to determine whether cytokines modulated the expression of mimitin and its binding partners. Our previous studies have shown that proinflammatory cytokines modulate the expression of several mitochondrial proteins participating in ATP production. Further, our studies on primary cultures of rat hepatocytes have revealed that cytokines such as interleukin (IL)-1 and IL-6 regulate energy metabolism and mitochondrial function by significantly inhibiting ATP production and utilization in a time- and dose-dependent manner. In this study, we observed that the levels of the mimitin transcript and mimitin protein increased in HepG2 cells exposed to IL-1 and IL-6 for 12 h and 18 h, respectively. These cytokines also stimulated the expression of the luciferase reporter gene under the control of the mimitin gene promoter. These observations indicate that both the cytokines regulate mimitin gene expression at the transcriptional level.

# Source: [*Mimitin – a novel cytokine-regulated mitochondrial protein*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2667391/) by Paulina Wegrzyn, Stephen J Yarwood, Nathalie Fiegler, et al. used under [CC-BY](https://creativecommons.org/licenses/by/4.0/).