We looked for the effects of modulation of miminit expression and for miminit-binding partners. Our previous studies on the effects of proinflammatory cytokines on mitochondrial function have shown that these cytokines change modulate the expression of several mitochondrial proteins. 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 ATP production and utilization in a timely- and dose-related dependent manner. It 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 miminit and its binding partners. In this study, we found that in HepG2 cells exposed to IL-1 and IL-6 for 12 h and 18 h, respectively, increase of the levels of the miminit transcript and miminit 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 of the miminit gene promoter. It should conclude that both the cytokines affect regulate miminit gene expression in the transcriptional level.