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