Spiroducta polyrhiza Inhibits Inflammatory Responses in IFN-gamma and LPS-stimulated Mouse Peritoneal Macrophages


Department of Oriental Pharmacy, Woosuk University

Spiroducta polyrhiza (SP) has been used widely as a traditional medicine. In macrophages, nitric oxide (NO) is released as an inflammatory mediator and has been proposed to be an important modulator of many pathophysiological conditions including inflammation. In this study we have examined the NO inhibition effect of 85% methanol extracts of SP in mouse peritoneal macrophages. Lipopolysaccharide (LPS) has been reported to induce production of NO. Extracts of SP (1, 10, 100 µg/ml) suppressed NO production in LPS-stimulated mouse (C57BL/6) macrophages. In addition, it also attenuated the expression of inflammatory enzymes like cyclooxygenase-2, and inducible NOS as assessed by immunoblotting with specific antibodies. These results suggest that 85% methanol extracts of SP would be useful in inflammatory diseases.

This work was supported by the Korea Research Foundation Grant funded by the Korean Government(MOEHRD) (The Regional Research Universities Program/Center for Healthcare Technology Development)