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내독소에 의해 유발된 대식세포의 염증반응에서 비티신 에이의 억제 효과

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Vitisin A Inhibits LPS-induced Inflammatory Effects in RAW 264.7 Macrophage Cells

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Vitisin A, a resveratrol derivative isolated from the roots of Vitis vinifera, exhibits antioxidative, antiplatelet, and antitumor effects. However, the protective role of vitisin A on lipopolysaccharide (LPS)- induced inflammation in RAW 264.7 macrophage cells and its mechanism remain unclear. Here we evaluated whether vitisin A affects nitric oxide (NO) production and inducible nitric oxide synthase (iNOS) expression in LPS- stimulated RAW 264.7 cells and studied the effect of vitisin A on phosphorylation of mitogen- activated protein kinase (MAPK) family members and nuclear factor- kappa B (NF- κB) activation. Vitisin A inhibited LPS- induced NO production and iNOS expression in RAW 264.7 cells. It also attenuated LPS- induced extracellular signal- regulated kinase (ERK) and p38 phosphorylation. Additionally, vitisin A suppressed LPS- induced NF- κB activation in these cells. These results suggest that vitisin A may exert anti- inflammatory effect on LPS- induced RAW 264.7 macrophage cells.

Key Words : 비티신 에이, 항염증작용, 항산화작용, 대식세포,
Vitisin A, Anti- inflammation, NF- κB, Nitric Oxide, Macrophage