Limonin is a furanolactone found in fruits in the Citrus family. Limonin exhibits antioxidative, anti-inflammatory, hepatoprotective, anticancer, antiviral, anti-parasitic, and immunomodulatory activities. In animal models of hepatic ischemia/reperfusion, limonin upregulates expression of IL-10 and downregulates expression of toll-like receptors 2 and 4 (TLR2, TLR4), MyD88, TRIF, TNF-α, and NF-κB. In colon adenocarcinoma cells, limonin induces mitochondria-dependent apoptosis and inhibits proliferation. Additionally, limonin inhibits expression of HIV-1 and HTLV-1 in infected cells. This compound also exhibits larvicidal activity against species of Aedes and decreases NF-κB activation and CD4+ T cell stimulation in vitro.

References


