

Anti-inflammatory effects of mulberry (*Morus alba* L.) root bark and its active compounds

ABSTRACT

Mulberry (*Morus alba* L.) root bark (MRB) was extracted using methanol and the extracts were subjected to tests of anti-inflammatory effects. The ethyl acetate fraction demonstrated the best anti-inflammatory effects. Purified compounds, sanggenon B, albanol B and sanggenon D, showed inhibitory effects on NO production in LPS-stimulated RAW264.7 cells and albanol B demonstrated the best anti-inflammatory effects. Regarding the underlying molecular mechanisms, further investigations showed that treatments with Albanol B reduced production of pro-inflammatory cytokines and decreased expression of inducible nitric oxide synthase (iNOS) and cyclooxygenase-2 (COX-2). These results would contribute to development of novel anti-inflammatory drugs from MRB.

Keyword: Mulberry root bark; Anti-inflammatory; Diels-Alder type adducts; Albanol B