

## Anti-inflammatory Effects of *Abeliophyllum distichum* Flower Extract

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*Abeliophyllum distichum* is a medicinal plant used in regional traditional medicine to relieve pain in inflammatory processes. In this study, anti-inflammatory effects of *Abeliophyllum distichum* stem (ADS) ethyl acetate extract were examined. Furthermore, possible molecular mechanisms of the anti-inflammatory effects were dissected. The anti-inflammatory activity was investigated by inhibition of lipopolysaccharide (LPS) induced pro-inflammatory cytokine production in murine macrophage-like cell line Raw264.7 cells and human microglial cell line BV2 cells. The measurement of the induced pro-inflammatory cytokine levels were carried out by ELISA. The phosphorylation of ERK1/2, JNK, and MAPK, and the nuclear expression of nuclear factor NF- $\kappa$ B p65 were investigated by Western blot analysis. The extract of ADS significantly decreased the production of pro-inflammatory cytokines. In addition, the extract suppressed the phosphorylation of ERK1/2, JNK, and p38 MAPK, and the nuclear translocation of NF- $\kappa$ B p65 in activated cells. Our findings provide evidence for the popular use of *Abeliophyllum distichum* in inflammation around Goesan region and also suggest that the stem extract has potential therapeutic benefits against several inflammatory diseases.

**Key words:** *Abeliophyllum distichum* flower, Inflammation, LPS