

**Anti-inflammatory activity of *Eucommiae*
Cortex through the inhibition of MAPK
phosphorylation in mouse peritoneal
macrophages**

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Eucommiae Cortex (EC) has been well known for the treatment of rheumatoid arthritis in Korean. However, the anti-inflammatory mechanism of EC is not completely understood. To elucidate the mechanism of EC that accounts for its anti-inflammatory effect, we examined the effects of EC on lipopolysaccharide (LPS)-induced cytokines, and NO production, COX-2, and iNOS protein expression from mouse peritoneal macrophages.

In this study, we showed that EC inhibited the lipopolysaccharide (LPS)-induced tumor necrosis factor (TNF)- and interleukin (IL)-6 production. In the inflammatory process, cyclooxygenase (COX)-2 and inducible nitric oxide synthase (iNOS) increased in mouse peritoneal macrophages. EC decreased the protein level of COX-2, iNOS and production of PGE₂ NO in LPS-stimulated mouse peritoneal macrophages.

This study suggests that an important molecular mechanism by EC reduce inflammation, which might explain its beneficial effect in the regulation of inflammatory reactions.

Key words: Eucommiae Cortex tumor necrosis factor- α ; interleukin-6; cyclooxygenase-2; inducible nitric oxide synthase