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[\[PDF \(848K\)\]](#) [\[References\]](#)**Inhibitory action of eugenol compounds on the production of nitric oxide in RAW264.7 macrophages**Weihua LI¹⁾, Ryoko TSUBOUCHI¹⁾, Shanlou QIAO¹⁾, Miyako HANEDA¹⁾, Keiko MURAKAMI¹⁾ and Masataka YOSHINO¹⁾

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ABSTRACT

Effects of eugenol compounds on the production of nitric oxide (NO) in RAW264.7 macrophages were analyzed in relation to the anti-inflammatory action of these compounds. Eugenol and isoeugenol inhibited lipopolysaccharide (LPS)-dependent production of NO, which was due to the inhibition of protein synthesis of inducible nitric oxide synthase (iNOS). Isoeugenol showed the most effective inhibitory effect and eugenol was less effective. LPS-dependent expression of cyclooxygenase-2 (COX-2) protein was also inhibited markedly by isoeugenol, and less effectively by eugenol. Anti-inflammatory action of eugenol compounds may be explained by the inhibition of NO production and COX-2 expression, the pro-inflammatory mediators.

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