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RADICICOL INHIBITS p65 NUCLEAR TRANSLOCATIONYoung Jin Jeon*Dept of Pharmacol, Coll of Med., Chosun Univ, Gwangju 501-759, Korea*

In the present study, we demonstrate that radicicol, a macrocyclic antifungal antibiotic originally isolated from *Monosporium bonorden*, inhibits LPS-induced expression of iNOS gene in RAW 264.7 cells. Treatment of peritoneal macrophages and RAW 264.7 cells with radicicol inhibited LPS-stimulated nitric oxide production in a dose-related manner. Immunohistochemical staining of iNOS and RT-PCR analysis showed that the decrease of NO was due to the inhibition of iNOS gene expression in RAW 264.7 cells. Immunostaining of p65, EMSA, and reporter gene assay showed that radicicol inhibited NF- κ /Rel nuclear translocation, DNA binding, and transcriptional activation, respectively. Collectively, these series of experiments indicate that radicicol inhibits iNOS gene expression by blocking NF- κ /Rel nuclear translocation. Due to the critical role that NO release plays in mediating inflammatory responses, the inhibitory effects of radicicol on iNOS suggest that radicicol may represent a useful anti-inflammatory agent.

Key Words: Radicicol, Hsp90, NF- κ B/Rel