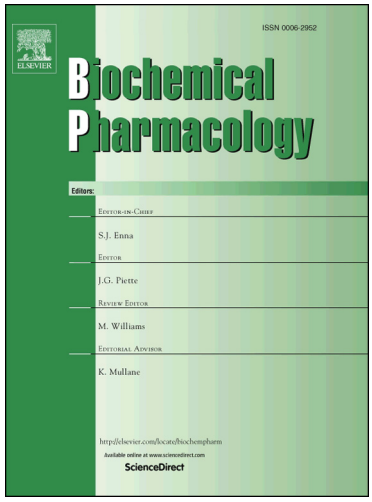

Inhibition of NADPH oxidase activities ameliorates DSS-induced colitis

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Inhibition of NADPH oxidase activities ameliorates DSS-induced colitis

Running title: NOX mediates DSS-induced colitis

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Abstract

NADPH oxidases (NOX) act to generate reactive oxygen species (ROS) and exhibit microbicidal bioactivity, whereas their roles in mediating immune responses of inflammation in intestine remain to be further elucidated. The study was performed to explore the effects of NOX activity on regulation of macrophage functions. Macrophage responses were induced by lipopolysaccharides (LPS) in RAW 264.7 cells (in vitro) or dextran sulfate sodium (DSS) in BALB/c mice (in vivo) respectively. LPS induced NOX2 expression and initiated NOX activities in RAW 264.7 cells. Conversely, inhibition of NOX activity by DPI and VAS2870 diminished LPS induced NOX