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IMMUNOSTIMULATION BY THE EXTRACTS OF SALICORNIA HERVACEA

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In the present study, the potent lipopolysaccharide (LPS)-mimetic stimulation of B cells and macrophages by hot water extract from Salicornia herbacea (S. europeae L.) is described. The extract activated spleen cells to proliferate in a dose-related manner as measured by $[^3$ H]-thymidine incorporation response. The extract selectively induced lymphocyte proliferation in B cell-enriched spleen cells but not in T cell-enriched one. The extract also stimulated macrophages to produce nitric oxide. Analysis of cytokine gene expression study using RT-PCR showed that the extract induced macrophage related cytokine including iNOS and IL-1 β but not IL-2, an important cytokine produced by T cells. Blocking experiment with polymyxin B, a selective inhibitor of LPS, showed that the LPS-mimetic immune stimulation by the extract is not due to the contamination by LPS.

keyword: Immunostimulation, Lipopolysaccharide, B cells, Macrophage