

## Screening of Anti-inflammatory Effect of Halophyte Extracts

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Halophyte is a plant that has evolved to grow well in salty places, and is mainly distributed in coastal wetlands, sand dunes, salt fields, and reclaimed lands in tidal flats and river estuaries. Because it grows in the soil where seawater enters and exits, it is very abundant in natural minerals and produces certain metabolites to survive sustainably in the surrounding environment. In this study, anti-inflammatory studies were conducted using 15 kinds of halophyte to secure data on halophytes of infinite value as functional materials. The aim of this study was to select a group of halophytes that regulate iNOS expression, which is involved in the secretion of inflammatory cytokines and nitric oxide production in LPS-induced macrophages. Among the 15 species of halophyte, except for *Triglochin maritimum*, *Suaeda japonica*, and *Carex pumila*, NO production was reduced in 12 species of halophytes, and 7 species of halophyte (*Suaeda asparagoides*, *Artemisia fukudo*, *Spergularia marina*, *Aster tripolium*, *Suaeda australis*, *Atriplex subcordata*, *Calystegia soldanella*) significantly decreased the expression levels of TNF- $\alpha$  and IL-1 $\beta$ .

**Note:** Fifteen species of halophyte (*Suaeda asparagoides*, *Atriplex gmelinii*, *Atriplex subcordata*, *Suaeda japonica*, *Suaeda maritima*, *Suaeda australis*, *Salicornia europaea*, *Aster tripolium*, *Artemisia fukudo*, *Artemisia scoparia*, *Limonium tetragonum*, *Spergularia marina*, *Calystegia soldanella*, *Carex pumila*, *Triglochin maritimum*)

**Key words:** Halophyte, Anti-inflammatory effect, Cytokine, Nitric oxide, Macrophage