

Anti-inflammatory Action of Herbal Medicine Comprised of *Scutellaria baicalensis* and *Chrysanthemum morifolium*

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Various mixtures were prepared depending on the mixing ratio of *Scutellaria baicalensis* hot water extract (SB-HW) and *Chrysanthemum morifolium* ethanol extract (CM-E) and their anti-inflammatory activity were compared. Among them, SB-HW (80 µg/mL)/CM-E (120 µg/mL) or SB-HW (40 µg/mL)/CM-E (160 µg/mL) significantly inhibited LPS-stimulated NO and IL-6 levels in RAW 264.7 cells. The SB-HW (80 µg/mL)/CM-E (120 µg/mL) mixture, which was determined as active mixture, significantly reduced MUC5AC secretion in PMA and LPS-induced NCI-H292 cells. The active mixture also reduced the production of PGE2 and IL-8 in PMA-induced A549 cells. LC-MS/MS analysis showed that the active mixture was composed of high contents of flavone glycosides, such as baicalin and cynaroside. Western blot analysis indicated that the active mixture suppressed phosphorylation of ERK, JNK, and p38, associating with the inhibition of MAPK signaling. Taken together, our results suggest that the active mixture could be applied as a new anti-inflammatory herbal medicine

Key words: anti-inflammatory activity; *Scutellaria baicalensis*; *Chrysanthemum morifolium*; herbal mixture; mitogen-activated protein kinase

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