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Confirmation of Estrogenic Activities in Oriental Herbal Medicines.

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In order to evaluate the direct effect of estrogenic compounds in oriental herbal medicines, the estrogenic activity was measured using an *in vitro* detection system. For this system, human breast cancer cell line MCF7 was transfected using an estrogen responsive CAT reporter plasmid. Estrogenic activities of Platycodi radix, Astragali radix and Glycyrrhizae radix were evaluated using this system. Estrogenic activity of a 500 μg/ml ethanol extract of Platycodi radix was as same as that of a 10^{-8} M standard solution (17β-estradiol) and activity of a 50 μg/ml ethanol extract was between those of a 10^{-8} M and a 10^{-9} M standard solutions. In addition, estrogenic activity of a 5 μg/ml ethanol extract of Platycodi radix was as same as that of a 10^{-10} M standard solution. The same activity patterns were observed in the system which was treated by Astragali radix or Glycyrrhizae radix extracts. The most effective activity was observed in a system which was treated by Platycodi radix extract, but the least activity was observed by Glycyrrhizae radix extract.

In this result, it was confirmed that Platycodi radix, Astragali radix and Glycyrrhizae radix extracts possess estrogenic compounds.