

## Screening for estrogenic and antiestrogenic activities of plants growing in Egypt and Thailand

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### ABSTRACT

**Background** There is a growing demand for the discovery of new phytoestrogens to be used as a safe and effective hormonal replacement therapy. **Materials and Methods** The methanol extracts of 40 plants from the Egyptian and Thailand folk medicines were screened for their estrogen agonist and antagonist activities. The estrogenic and antiestrogenic effects of the tested extracts were carried out using the yeast two-hybrid assay system expressing ERalpha and ERbeta. In addition, all the extracts were subjected to a naringinase treatment and retested for their estrogenic activity. **Results** The methanol extracts of *Derris reticulata* and *Dracaena lourieri* showed the most potent estrogenic activity on both estrogen-receptor subtypes, while, the methanol extracts of *Butea monosperma*, *Erythrina fusca*, and *Dalbergia candenatensis* revealed significant estrogenic activity on ERbeta only. *Nigella sativa*, *Sophora japonica*, *Artabotrys harmandii*, and *Clitorea hanceana* showed estrogenic effect only after naringinase treatment. The most potent antiestrogenic effect was revealed by *Aframomum melegueta*, *Dalbergia candenatensis*, *Dracena loureiri*, and *Mansonia gagei*.

### KEYWORDS

Estrogenic activity . leguminoseae . yeast two-hybrid assay

### REFERENCES

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