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Record 1 of 1**Title:** Estrogenicity of Glabridin in Ishikawa Cells**Author(s):** Poh, MSW (Poh, Melissa Su Wei); Yong, PVC (Yong, Phelim Voon Chen); Viseswaran, N (Viseswaran, Navaratnam); Chia, YY (Chia, Yoke Yin)**Source:** PLOS ONE **Volume:** 10 **Issue:** 3 **Article Number:** e0121382 **DOI:** 10.1371/journal.pone.0121382 **Published:** MAR 27 2015**Times Cited in Web of Science Core Collection:** 3**Total Times Cited:** 3**Usage Count (Last 180 days):** 0**Usage Count (Since 2013):** 7**Cited Reference Count:** 32

Abstract: Glabridin is an isoflavan from licorice root, which is a common component of herbal remedies used for treatment of menopausal symptoms. Past studies have shown that glabridin resulted in favorable outcome similar to 17 beta-estradiol (17 beta-E-2), suggesting a possible role as an estrogen replacement therapy (ERT). This study aims to evaluate the estrogenic effect of glabridin in an in-vitro endometrial cell line -Ishikawa cells via alkaline phosphatase (ALP) assay and ER-alpha-SRC-1-co-activator assay. Its effect on cell proliferation was also evaluated using Thiazoyl blue tetrazolium bromide (MTT) assay. The results showed that glabridin activated the ER-alpha-SRC-1-co-activator complex and displayed a dose-dependent increase in estrogenic activity supporting its use as an ERT. However, glabridin also induced an increase in cell proliferation. When glabridin was treated together with 17 beta-E-2, synergistic estrogenic effect was observed with a slight decrease in cell proliferation as compared to treatment by 17 beta-E-2 alone. This suggest that the combination might be better suited for providing high estrogenic effects with lower incidences of endometrial cancer that is associated with 17 beta-E-2.

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Author	ResearcherID Number	ORCID Number
Yong, Phelim	M-5961-2015	0000-0002-5817-7381

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