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## Cytotoxicity effects of extracts and essential oil of *Kaempferia galanga* on cervical cancer C33A cell line

 (Article)

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### Abstract

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The cytotoxicity properties of *Kaempferia galanga* extracts were studied. Crude extracts of the rhizome were obtained by extraction with methanol (KGM), petroleum ether (KGPE) and ethyl acetate (KGEA). Meanwhile, the essential oil (KGEO) was produced by steam distillation method. The aim of the present work was to screen the cytotoxic activity of *K. galanga* extracts and essential oil on cervical cancer C33A cell line. The cytotoxic activities were assessed on C33A cell line using MTT and scratch assays. Results of MTT assay showed that KGEA and KGM were the most cytotoxic at 1000 µg mL<sup>-1</sup> with cell viabilities of 11 and 14 %, respectively. Lower cytotoxic activities were shown by KGPE and KGEO with 64 and 88 % cell viability, respectively. Meanwhile, KGEA was slightly cytotoxic at concentration of 500 µg mL<sup>-1</sup> with cell viability of 70 %. However, all the extracts were able to inhibit or at least slow down cell growth when tested using the scratch assay. It can be concluded that *K. galanga* seems to have cytotoxic properties and may be used as an anticancer agent. © 2017, Oriental Scientific Publishing Company. All rights reserved.

### Author keywords

Cervical cancer C33A cell line Cytotoxic Kaempferia galanga

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