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Cycloartobiloxanthone extracted from bark of *Artocarpus gomezianus* inhibits the migratory behavior of non-small cell lung cancer cells

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Lung cancer metastasis is one of the most common causes of cancer death. The process requires tumor cell dissemination, motility, intravasation and formation of new tumor at different sites. Natural product-derived compounds exhibiting anti-motility effects is of interest as they may serve as promising lead compounds for cancer therapy. This research aimed to investigate the effect of cycloartobiloxanthone, a pure compound isolated from bark of *Artocarpus gomezianus* on migration and invasion activities of non-small cell lung cancer cells. Cells were treated with various concentrations of the compound to determine cell viability using MTT assay. The migration and invasion of the treated cells were evaluated by wound healing and trans-well assays, respectively. Motility-related proteins were investigated by western blotting. Here we found that cycloartobiloxanthone exhibited potent anti-migration and anti-invasion activities tested in lung cancer H460 cells. In addition, results showed that the compound suppressed cell migration by attenuated migration regulatory proteins. Together, the inhibitory activity of cycloartobiloxanthone on lung cancer migration suggests that cycloartobiloxanthone may be suitable for further development for the treatment of cancer metastasis.

Biography

Sucharat Tungsukruthai has completed her Bachelor's degree in Science (Biology) from Chulalongkorn University in 2016. She has completed her Master's degree in Pharmacology and currently a Training Researcher at Cell-Based Drug and Health Product Development Research Unit, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Thailand. She is interested in special pathways in cancer such as apoptosis, metastasis and autophagy.

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