Phytochemical screening of in vitro aglaonema simplex plantet extracts as inducers of SR-B1 ligand expression/ Zuriah Ismail, Aziz Ahmad, Tengku Sifzizul Tengku Muhammad

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Abstrak

ABSTRAK
Aglaonema simplex is an aquatic plant that has been widely used as ornamental plants. the genus contains polyhydroxy alkaloids that exhibit the glycosidase inhibitor activity. this paper reports a phytochemical screening of in vitro Aglaonema simplex plantlets and the potential compounds as alternatives of SR-B1 ligand that plays a role in reducing atherosclerosis. the phytochemical screening was conducted using Thin Layer Chromatography and Attenuated Total Reflectance-Fourier Transform Infrared Spectroscopy on methanol crude extracts of leaves, stems and roots. SR-B1 ligand activities were tested on HepG2 cell line stably transfected with SR-B1 promoter. The results showed that the extracts contained secondary metabolites belonging to the terpenoids, steroids, phenolics, alkaloids and glycosides. Luciferase assay suggested that the stem and root extracts increased the expression of SR-B1 at 1.61- and 1.72-fold higher than the control, respectively. thus, Aglaonema simplex is one of the potential sources of the phytochemicals for the treatment of atherosclerosis. the tissue culture technology may be applicable for sustainable production of the identified compounds from the plant.