

## Effect of *Phaleria nisidai* Extracts on Cell Viability of Pancreatic Beta Cell Lines

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The leaves of *Phaleria nisidai* Kaneh. have been used as a beverage for tonic and immune-enhancing effect in Palau. Recently, extract of the plants showed anti-diabetic effect in clinical trial and possibility could be used as a medicine for diabetes. However, in vitro and in vivo experiments which elucidate cytotoxicity and biological mechanism have not been studied yet. To begin the series of in vitro and in vivo anti-diabetic studies, we evaluated cell viability of pancreatic beta cell lines to figure it out toxicity of the extract. The leaves of *Phaleria nisidai* were extracted with distilled water and 70% EtOH, and followed by evaporation and lyophilization. And, MIN6 and RIN-m5F cell lines were used for assessment of cell viability. MTT assay was adopted to evaluate a toxicity. Any of extract and concentration used in this study did not show cytotoxicity in the cell lines. Furthermore, morphological change was not observed. These results mean *Phaleria nisidai* might be a medicinal resource when further biological and safety studies would be performed.

**Key words:** *Phaleria nisidai*, Cytotoxicity, Anti-diabetes, Palau

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