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Real-time cytotoxicity assay of water extracts *Hibiscus rosa-sinensis* (Book Chapter)

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Abstract

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A real-time impedance-based electrochemistry assay was used for assessing the cytotoxicity effect of water extract *Hibiscus Rosa-Sinensis* on Vero cell line. In this study, *H. rosa-sinensis* was extracted by using the water extraction with three different concentration which were 200, 100 and 50 µg/mL. The phytochemical compounds in the extract were analyzed by using the Gas Chromatography-Mass Spectrometry (GC-MS). The GC-MS result showed that the extract contains bioactive compounds such as n-hexadecanoic acid, pentadecanoic acid, phenol, 2,4-bis(1,1-dimethylethyl) and octadecanoic acid that have bioactive properties such as cytotoxic and antioxidant. The cytotoxic effect of the extract on normal cell line was assessed by using Real-Time Cell Analysis (RTCA) instrument. The result showed that there was no significant cytotoxicity effect against Vero cell lines. This result showed that the real-time impedance-based assay can be utilized to monitor changes of the cells and to determine the inhibitory concentration of the extract. © 2020 Trans Tech Publications Ltd, Switzerland.

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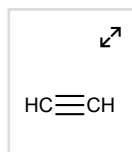
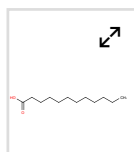
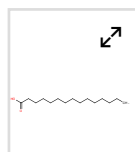
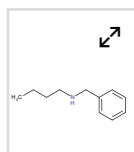
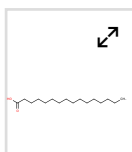
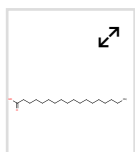
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Hibiscus rosa sinensis

Inhibitory concentration

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