

Detecting the effects of anticancer drugs on normal and breast cancer cells by using thiolated chitosan modified cell chip

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In this study, a cell chip with a thiolated chitosan layer that can detect the effects of anticancer drugs and analyze cytotoxicity in cells was developed. Compared to collagen, thiolated chitosan showed greater cell affinity. Cyclic voltammetry (CV) was applied to distinguish the features of human mammary epithelial cell and breast cancer cells. Then anticancer drugs were added to each cell culture in to observe their effects. As a result, according to the cell line and anticancer drug, the cathode peak currents decreased differently. Conventional MTT assay was used to make a validation. Hence, thiolated chitosan modified cell chips can be applied in many fields such as disease diagnosis and cytotoxicity assays.

Acknowledgements: This research was supported by Leading Foreign Research Institute Recruitment Program through the National Research Foundation of Korea (NRF) funded by the Ministry of Science, ICT & Future Planning (MSIP) (2013K1A4A3055268), and by the National Research Foundation of Korea (NRF) grant funded by the Korea government (MSIP) (No. 2014R1A2A1A10051725)