A Simple Procedure for preparation of N-Thiazolyl and N-Thiadiazolylcantharidinimides and Evalution of Their Cytotoxicities against Human Hepatocellular Carcinoma Cells

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Abstract

We made an effort to prepare effective cantharidinimides by heating the reactants 1 and 2a-j to 200 degrees C with toluene and triethylamine to provide 10 N-thiazolyl- and N-thiadiazolylcantharidinimides 3a-j in high yields of 48-91%. All of the synthetic compounds were tested for their capability to suppress growth of the human hepatocellular carcinoma cell lines, SK-Hep-1 and Hep 3B. The results showed that compound 3f was the most potent, and it was more cytotoxic than cantharidin.