PRELIMINARY SCREENING OF BIOCHEMICAL COMPOUNDS FROM SEEDS OF *Annona muricata* (SOURSOP)

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ABSTRACT

PRELIMINARY SCREENING OF BIOCHEMICAL COMPOUNDS FROM SEEDS OF *Annona muricata* (SOURSOP)

Annona muricata fruit have been used as traditional remedies in the folk to treat diseases such as cancer, arthritis, diarrhea, fever, malaria and skin rashes. This is because it contains biochemical compounds that are used to treat the diseases. As seeds of *Annona muricata* are being classified as waste material which leads to pollution, the study is beneficial to help in reduce the waste. Also this study can encourages society to create a product based on the compound that might contain biochemical compounds in the seed such as medicine and food product. The aim of this study is to conduct preliminary screening seeds of *Annona muricata* by using thin layer chromatography. This experiment was carried out to detect the presence of biochemical compounds in fruit's seed of *Annona muricata* at three different locations which are Kuala Pilah, Tanjung Ipoh and Bahau and also to compare different ratios of chloroform and methanol that are used for preliminary screening of thin layer chromatography (TLC) in fruit's seed of soursop. TLC was used as a method of experiment is because of it is inexpensive and a fast way of separation of the compound. The experiment was performed with four difference ratios of solvent of chloroform and methanol which were 1:4, 2:3, 3:2 and 4:1. Based on the experiment, it was showed that 4:1 ratio has higher mobility and clearer separation compared to 2:3 ratio which was low in mobility of biochemical compounds. The biochemical compound presence in seed of *Annona muricata* at Kuala Pilah were unknown A with Rf value of 0.64, unknown D with Rf value of 0.93, unknown G with Rf value of 0.53 and unknown J with Rf value of 0.83. For unknown biochemical compound and Rf value in seeds from Tanjung Ipoh were unknown B with 0.71, unknown E with 0.90, unknown H with 0.62 and unknown K with 0.84. Unknown C, F, I and L are representing for seed from Bahau and its Rf value were 0.67, 0.90, 0.61 and 0.84 respectively. From three locations of seed collection, seeds from Bahau showed a big and clear of black spot compared to Kuala Pilah's seed which showed medium black spot and light black spot for seeds from Tanjung Ipoh. Meanwhile, for best mobility of sample spot on TLC plate, Tanjung Ipoh indicated the best result of Rf value followed by Bahau and Kuala Pilah. As a conclusion, biochemical compounds were presented in seeds of *Annona muricata* from Kuala Pilah, Tanjung Ipoh and Bahau. The 4:1 ratio of

solvent which were chloroform and methanol that were exhibited as the best result for separation of biochemical compounds in Kuala Pilah, Tanjung Ipoh and Bahau. From this experiment, all the results that have been obtained can be shared with other people through journal publication and also can be used to produce food products that contain the biochemical compound which are good for human health.