

**READY TO DRINK
SOURSOP LEAVES EXTRACT**

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

READY TO DRINK SOURSOP LEAVES EXTRACT

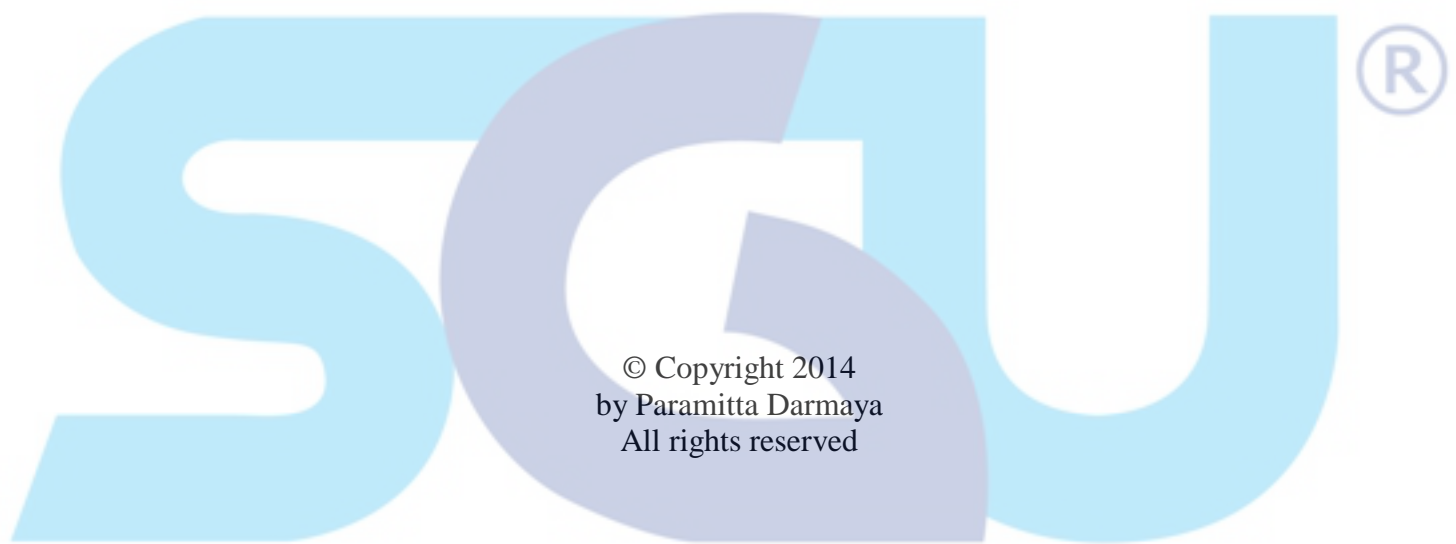
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The leaves of the soursop (*Annona muricata*) contain a bioactive compound called *Annonaceous* acetogenins. Acetogenins acts as anti-tumor, immunosuppressive, pesticidal, anti-protozoal, anti-helminthic and anti-microbial. The general objective of this research was to produce a ready to drink soursop leaves extract. The extraction of soursop leaves extract was prepared by drying the soursop leaves at 60⁰C. The pulverized dried soursop leaves was then macerated with various temperatures (50⁰, 60⁰, 70⁰, and 80⁰ C) by using ultrasonic bath with the ratio soursop leaves over ethanol 70% 1:10 (g/ml). The extract was concentrated using vacuum rotary evaporator, then the concentrated extract was diluted with water and was mixed with additives and preservatives. Sensory test, proximate analysis and MTT assay analysis was performed to support the research. The results found that soursop leaves extracted at 80⁰C has 78.93% of the NADH inhibition activity was the best extraction temperature among the other temperatures. The most preferred flavor for soursop leaves extract was green tea flavor. The IC₅₀ value was 79.514µg/ml resulted from the MTT analysis in liver cancer cell.

Keywords: Annona muricata, annonaceous acetogenins, NADH inhibition activity, concentrated extract, proximate analysis, MTT assay.



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DEDICATION

I dedicate this thesis to my beloved parents,
for the endless love throughout my life,
for the unconditional support for my studies.

Thank you for everything.



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