INCREASING EXPRESSION OF CD14 AND IFN-γ IN MICE (Mus musculus) PBMCs WERE VACCINATED BY ND AFTER GIVING MANGOSTEEN (Garcinia mangostana L.) PERICARP EXTRACT

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ABSTRACT

Mangosteen pericarp often was not exploited by people, whereas it had many important benefits for health. Mangosteen pericarp contains xanthones are known to be beneficial in the immune system. The active ingredient of mangosteen pericarp suspected ability as an immunomodulatory agent for the treatment of several diseases such as cancer and diabetes. This research aimed to analyze the expression of CD14 and IFN-γ in mice PBMCs were vaccinated by ND after giving mangosteen pericarp extract using immunocytochemistry. Animals used in this research were 36 females Balb/c mice that randomly separated into six groups (P0, P1, P2, P3, P4, P5) with six mice each. P0 was negative control group, P1 was given with 40 mg/ml mangosteen pericarp extract, P2 until P4 was given with 20 mg/ml, 40 mg/ml, 60 mg/ml respectively, and P5 was positive control group using Stimuno®. All groups were vaccinated by inactive ND vaccine except for the P1 group. Blood collection has done one week after vaccination. Based on the results, the mangosteen pericarp extract could stimulate immune response.

Key words: mangosteen pericarp extract, ND vaccine, CD14, IFN-γ