ABSTRACT

Mangosteen pericarp has been traditionally used among local people of Southeast Asia to treat varied diseases for many years. The research was conducted in a purpose to analyze the immunomodulatory effect of mangosteen pericarp extract (MPE), by measuring both the expression of TLR7 in mice PBMCs and antibody titers IgG in mice serum. Animal used in the research were 36 female BALB/c mice that randomly separated into six groups (T0, T1, T2, T3, T4, T5) with six animals each. T0 was negative control group administered with PBS. T1 group was administered with 40 mg/kg/ml MPE. T2, T3, and T4 group were designed with different dose of MPE (20 mg/kg/ml, 40 mg/kg/ml, 60 mg/kg/ml respectively). T5 group was positive control group administered with 0.6 mg/25 g BW/ml of Stimuno®. MPE was administered for four day. All groups were vaccinated by inactive velogenic type ND vaccine except for T1 group once and without booster after MPE administration was over. Blood collection has done a week after vaccination. The result indicated that MPE could increase both the activity of TLR7 and antibody titers of IgG.

Key words: mangosteen pericarp extract, immunomodulator, mice, ND vaccine