

Apoptosis overview of cerebellum Purkinje cell in mice (*Mus musculus* L.) after exposure to methanol extract of the seeds of bitter melon (*Momordica charantia*) and DMPA

Syafruddin Ilyas^{1*}, Salomo Hurahae², Nursal³

^{1,2,3}Department of Biology, Faculty of Mathematics and Natural Sciences, University of Sumatra Utara. Jl. Bioteknologi I Kampus USU Medan 20155, Indonesia.

Abstract: Apoptosis of Purkinje cells of the cerebellum of mice can be used as an indicator of disruption to the cerebellum in the delivery of methanol extract of bitter-melon seeds (*Momordica charantia*) and DMPA. Experimental method used to determine the differences that occur in each of the control group and duration of administration methanol extract of bitter melon seeds and DMPA. The control group was divided to K0, K1, and K2 with duration time 0, 4, and 8 weeks respectively. The treatment group consisted of (P0) bitter melon seeds 0 week were given orally and intramuscular DMPA (@ 6 hours), (P1) bitter melon seeds and DMPA (@ 4 weeks), (P2) bitter melon seeds and DMPA (@ 8 weeks). Each group consisted of 5 mice so that the total of male mice is 30 individuals. Doses of methanol extract of bitter melon seeds is 5mg/10g body weight of mice were given orally¹. While DMPA dose of 0.175 mg/mouse were administered intramuscularly². The results showed no significant difference ($p>0.05$) between control and treatment at 0, 4, and 8 weeks on cell apoptosis of purkinje of mice cerebellum. It was concluded that the administration of the methanol extract of bitter melon seeds and DMPA secure the histology of the cerebellum in mice.

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