

P-49**Cytotoxicity Effect of Agaricuss Blazei Murill, Grifola Frondosa and Hericium Erinaceus Used In Traditional Medicine**

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Agaricus blazei murill (ABM), Grifola frondosa (GF) and Hericium erinaceus (HE) are mushrooms that are native to China and are widely cultivated in Malaysia for its medicinal uses. They are considered as most important edible and culinary-medicinal biotechnology species. This study was carried out to examine the in vitro toxicity of these medicinal mushrooms and their possible risk to human health. Extracts were prepared from these mushrooms using various solvents. The cytotoxicity of these extracts was determined by using the MTT assay [3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide] in the Chinese hamster fibroblast cell line (V79). Five different concentrations of the mushroom extracts (2mg/ml, 1mg/ml, 0.5mg/ml, 0.25mg/ml and 0.125mg/ml) were used and cytotoxicity was determined following 24 hours treatment. The results showed that only aqueous extracts of Agaricus blazeii murill displayed cytotoxicity effects (IC₅₀--2mg/ml) compared to the methanol extracts. In conclusion, the aqueous extracts of Agaricus blazeii murill showed weak cytotoxicity in vitro compared to methanol extracts, suggesting that these mushrooms are safe to consume.

Keywords: *Agaricus blazei murill*, Chinese hamster fibroblast cell line, Cytotoxicity effect, *Grifola frondosa*, *Hericium erinaceus*, MTT assay.
