

## Antidiabetic Potentials of Button Mushroom (*Agaricus bisporus*) on Alloxan-Induced Diabetic Rats

<b>Title</b>	Antidiabetic Potentials of Button Mushroom ( <i>Agaricus bisporus</i> ) on Alloxan-Induced Diabetic Rats
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<b>Abstract</b>	<p>Button mushrooms (<i>Agaricus bisporus</i>) is an edible mushroom that is most widely cultivated in the world. It contains bioactive compounds that might provide beneficial effects on diabetes mellitus patient. The study aimed to determine the effects of <i>A. bisporus</i> administration on the blood glucose, and malondyaldehyd (MDA) levels as well as superoxide dismutase (SOD) activity of alloxan-induced diabetic rats. This study was also conducted to determine the secondary metabolites produced by <i>A. bisporus</i>. The method used was experimental methods with Completely Randomized Design. <i>A. bisporus</i> extract at the doses of 250, 500 and 750 mg/kg body weight (BW) per day were orally applied to alloxan-induced diabetic rats for a period of 14 days after the rats became diabetes. The results showed that the extract of <i>A. bisporus</i> could decrease blood glucose, and MDA levels as well as increase SOD activity (p 0.05). <i>A. bisporus</i> extract 500 mg/kg BW is the most effective dose to be used. Based on Thin Layer Chromatography (TLC) test, it was known that secondary metabolites produced by <i>A. bisporus</i> are flavonoids, alkaloids, terpenoids and saponins. <i>A. bisporus</i> has potential as an antidiabetic through the ability to decrease blood glucose, and MDA levels, as well as increase SOD activity in diabetic rats. This research is able to provide information about the antidiabetic potential of <i>A. bisporus</i> extract so that it can be used as an alternative natural antidiabetic agent and can be applied in the community with ease and in a more controlled industrial scale.</p>
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