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## Influence of Culture Medium Components on the Pharmacological Effects of *Agaricus blazei*

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**Abstract:** Differences of the pharmacological effects of *Agaricus blazei* cultured by various materials were examined. *Agaricus blazei* mushrooms were prepared on culture media composed by the following five materials ; 1) tops of sugar cane shoots (stems and leaves), 2) rice straw 3) wheat straw, 4) broad leaf tree bark, and 5) used substrate after *Pleurotus ostreatus* cultivation. The pharmacological effects of this mushroom were examined by the following methods ; 1) anti platelet aggregation stimulated by PAF or arachidonic acid Na, 2) inhibition of IL-8 gene expression stimulated by TNF- $\alpha$ , 3) improvements of rough surfaces by using replica method.

In both anti platelet aggregation test and chemokine gene revelation control test, the *A. blazei* cultured on the top shoot of sugar cane medium showed the most effective results compared with that cultured on other media. In the test of the improvement of rough surfaces by using replica method, the effect of *A. blazei* cultured by the top shoot of sugar cane medium was also highest compared to that cultured on the control, the extracts of *A. bisporus* or the ion exchanged water. These results suggest that the *A. blazei* cultured on the top shoot of sugar cane medium can be expected to have the most effective pharmacological functions.

**Keywords:** *Agaricus blazei*, pharmacological effect, sugar cane, culture medium

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