

Research Article (Dette er en oppsummering, hele artikkelen er referert over).

Oral Treatment with **Extract of Agaricus blazei Murill** Enhanced Th1 Response through Intestinal Epithelial Cells and Suppressed OVA-Sensitized Allergy in Mice

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To clarify the mechanism of the **antiallergic activity of Agaricus blazei Murill extract** (ABME), the present paper used an *in vivo* allergy model and an *in vitro* intestinal gut model. During OVA sensitization, the serum IgE levels decreased significantly in ABME group. Interleukin (IL)-4 and -5 produced from OVA-restimulated splenocytes was significantly decreased, and anti-CD3 ϵ /CD28 antibody treatment also reduced IL-10, -4, and -5 production and increased IFN- γ production in ABME group. These results suggest that oral administration of ABME improves Th1/Th2 balance. Moreover, a coculture system constructed of Caco-2 cells and splenocytes from OT-II mice or RAW264.7 cells indicated that the significant increases in IFN- γ production by ABME treatment. **Therefore, it was concluded that the antiallergic activity of ABME** was due to the activation of macrophages by epithelial cells and the promotion of the differentiation of naïve T cells into Th1 cells in the immune.