

Antitumor and Immunostimulating Effects of Anoectochilus formosanus

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摘要

Abstract

The water extract of *Anoectochilus formosanus* Hayata showed a potent tumor inhibitory activity in BALB/c mice after subcutaneous transplantation of CT-26 murine colon cancer cells. The tumor-inhibition ratios of mice pre-administered with *A. formosanus* for 2 days before tumor transplantation, and treated further for 12 consecutive days, were 55.4% and 58.9% at the oral dose of 50 and 10mg/mouse per day, respectively. Even for the tumor-bearing mice, after oral administration of the water extract of *A. formosanus* for 12 consecutive days, the tumor inhibition ratios were still 23.8% and 40.5% at doses of 50 and 10mg/mouse, respectively. Because the low-concentration water extract of *A. formosanus* does not show direct cytotoxicity in CT-26 tumor cells, we observed further that oral administration of the water extract of *A. formosanus* may activate murine immune responses, such as stimulating the proliferation of lymphoid tissues and activating the phagocytosis of peritoneal macrophages against *Staphylococcus aureus*. This study suggests that the antitumor activity of *A. formosanus* may be associated with its potent immunostimulating effect. It is worth further analyzing the immunomodulating component purified from *A. formosanus*, and evaluating its potential value for the treatment of human cancers.