題名:ANTIMUTAGENIC ACTIVITY OF THE METHANOL EXTRACTS FROM THE FRUIT-BODY

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上傳時間:2009-11-13T02:35:47Z

摘要:The fruit body of a Basidiomycete Agaricus blazei, Jun-17 (Himematsutake) was extracted with hexane and chloroform-methanol (2:1, v/v), and the antimutagenic effect of the extracts was examined using an Ames/Salmonella/microsome assay. Both extracts of Agaricus inhibited the mutagenicity of benzo[a]pyrene(B[a]P). The hexane extract was purified by silica gel column chromatography and high performance liquid chromatography (HPLC), and linoleic acid was isolated as a main substance having antimutagenic activity. Fr. IIa, IIb, IIc and IIb, which reduced the number of His+ revertant colonies induced by B[a]P, were separated from the chloroform-methanol extract by silica gel column chromatography and HPLC. An antimutagenic substance in Fr. IIa was linoleic acid. From Fr. IIb, a bactericidal, not antimutagenic, substance was isolated and identified as 13-hydroxy cis-9, trans-11-octadecadienoic acid (13ZE-LOH). Antimutagenic substances in Fr. IIc and IId were not purified. The possible source and mechanism of formation of 13ZE-LOH are discussed.