URN etd-0407109-183706-463
Author Kai-Yuer Tang
Author's Email Address No Public.
Statistics This thesis had been viewed 26 times. Download 0 times.
Department
Year 2006
Semester 1
Degree Master
Type of Document Master's Thesis
Language zh-TW.Big5 Chinese
Title The anti-tumor effect of polysaccharides and exopolysaccharides of Sparassis crispa under submerged fermentation from activated RAW264.7 macrophages
Date of Defense 0000-00-00
Page Count 41

Keyword
Sparassis crispa

Abstract
The experiments were to investigate the anti-tumor effect of polysaccharides and exopolysaccharides of Sparassis crispa under submerged fermentation from activated RAW 264.7 macrophages. Screening the six different carbon sources, the corn starch as the carbon source can harvest the highest concentration of biomass, 11.984 g/L. Polysaccharide fraction (F-I) was extracted the air-dried and powdered S. crispa with hot water. The resulting residue was then extracted with cold alkali to obtain the second polysaccharide fraction (F-II), and then extracted with hot alkali to obtain the third polysaccharide fraction (F-III). Those polysaccharide fractions were collected after extensive dialysis. To test the anti-tumor activity of mediator released from the macrophage Raw 264.7 were stimulated by the polysaccharide fractions, respectively. Both of the F-II and F-III were cultured from the corn starch as the carbon source. Their best anti-tumor activity for MCF-7 was showed at 39.99% ± 2.62 % and 58.49 % ± 2.25%, respectively. Those results showed the polysaccharide of S. crispa can apparently inhibit the cell growth of MCF-7 from activated Raw264.7. The secretion of cytokines by Raw264.7 was investigated using reverse transcription polymerase chain reaction (RT-PCR). In RT-PCR, IL-1 and IL-6 mRNA expressions was induced in polysaccharide fraction (F-II)-treated Raw264.7 macrophage cells. The decrease of the survival ratio of MCF-7 resulted from the cytokines by the macrophage cells secreted.
Advisory Committee - advisor

- advisor

- advisor

Files No Any Full Text File.
Date of Submission 2007-01-31