URN etd-0407109-183721-1712
Author - Chuan Hsieh Yung
Author's Email Address No Public.
Statistics This thesis had been viewed 48 times. Download 0 times.
Department
Year 2006
Semester 2
Degree Master
Type of Document Master's Thesis
Language zh-TW.Big5 Chinese
Title Establish an evaluation system for fungal materials using in cosmetic.
Date of Defense 0000-00-00
Page Count 105

Keyword
fungi
cosmetic
Tremella
Auricularia polytricha
Monascus purpureus
tyrosinase
melanin
MMPs
nitric oxide
DCFH-DA
whitening
improvement of photoaged skin
anti-oxidant
anti-inflammatory

Abstract
The clinical characteristics of photoaging in Asian skin, such as pigmentary changes and wrinkle patterns. The freeze-dried powder of submerged culture of six Tremella strains (A), and the freeze-dried powder of polysaccharide extracted from submerged culture of six Tremella strains (B), and the freeze-dried powder of methanol extracts and ethanol extracts from three different substrates (C) were compared and its character were explored in this study.

The six Tremella stains: T. encephala T897、T. flava CCJ00907、T. nivalis CCJ00911、T. flava CCJ00928、T. sp. CCJ00933 and T. fucifomis CCJ00960. The three different substrates: Thanaka powder、Auricularia polytricha powder、Monascus purpureus vinasse powder.

These data demonstrate that 500μg/mL of F960、P928 and TPEE inhibit the tyrosinase activity and down-regulates melanogenesis significantly in B16F10 mouse melanoma cells.

In particular, 100μg/mL of P933、P960、APME and MPME are effective in reducing the gelatinase activities and MMP gene transcription. These results suggest that specific inhibition of MMP activity immediately after sun exposure could provide an effective way of preventing sun-induced damage of dermal extracellular matrix. Therefore, It can be developed as a promising photoaging-improving topical agent.

Moreover, the results demonstrate that 500μg/mL of Pb、P897、P907、APME、APEE and MPME decrease the cyto-toxicity of hydrogen peroxide, the effect may be by the notable proliferation activity for NIH 3T3 mouse fibroblasts.

Scavenging activity of reactive oxygen species (ROS) was evaluated by fluorescent probe DCFH-DA flow cytometry. F911 and P907 were proved inhibit the hydrogen peroxide-induced

release of reactive oxygen species.

Results indicate 100μg/mL of TPME、TPEE、APME and APEE inhibit the production of nitric oxide by lipopolysaccharide-induced RAW 264.7 macrophages, but do not affect the mRNA levels of inducible nitric oxide synthase (iNOS).The results suggest that those materials reduced inflammatory mediators and may be a powerful agent to inhibit inflammatory erythema in human skin.

This study tried to establish an evaluation system on whitening agents, improvement of photoaged skin, anti-oxidants, and anti-inflammatory activity using in cosmetic.

Advisory Committee Jian - Chi Chen - advisor

Chee - Jen Chen - advisor

Files No Any Full Text File.

Date of Submission 2007-07-24