FERNMENT EXTRACT OF AUREOBASIDIUM PULLULANS ISOLATES FROM JEJU ISLAND FOR COSMETIC ACTIVE INGREDIENTS

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Introduction: Aureobasidium pullulans is a black-yeast-like fungus used for production of the polysaccharide pullulan, which has numerous applications in medicine, cosmetics, the food industry, and other fields.

Objective: Ferment extracts of A. pullulans strains isolated in Jeju Island were evaluated properties as active ingredients for cosmetics.

Materials and Methods: Culture supernatants of each strains were reacted with 4 times volume of 95% ethanol for overnight at 4°C. The precipitants of ferment were freeze dried, and evaluated cytotoxicity, effects on keratinocyte migration, and inhibitory activities of biofilm formation of Staphylococcus aureus.

Results: The ferment extract of strain named GJW induced migration of human keratinocytes more effective than purified pullulan, and inhibited biofilm formation of S. aureus.

Conclusions: These results suggested that the ferment extract of A. pullulans GJW might be a potent active ingredient for skin care products.