

Searching and development of whitening cosmetic materials (Screening of skin whitening agents from natural sources which having antioxidative activity and tyrosinase inhibitory activity)

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Abstract

It has long been believed that whitening the skin is an essential element of beauty since white skin can hide a wide variety of skin problems. Under these circumstances, the home market for functional cosmetics containing skin-whitening cosmetic has rapidly expanded. In particular, the home market for skin whitening products was estimated to be 50 billion won in 2002.

On the other hand, the main trends of skin-whitening cosmetics materials on patents are extracts of the natural sources having whitening effect. Recently, many researcher are interested in the application of natural crude drugs from natural sources in cosmetics since late 1990's.

Melanin, very important of skin color, is synthesized from tyrosine in the melanosomes of melanocytes. Tyrosinase, which catalyzes the hydroxylation of tyrosin to 3,4-dihydroxyphenylalanine(DOPA) and the oxidation of DOPA to DOPA quinone, is key enzyme in melanogenesis. Therefore, tyrosinase is important target in skin whitening strategies.

In this study, in order to screen skin-whitening agents, inhibitory effect of medicinal plant materials on the melanin synthesis by mushroom tyrosinase was analyzed, *in vitro*. And then radical scavenging activity of test materials measured according to the procedure described by Blosi method.

Finally, candidates were applied to the cells, melanocyte. Our goal is new active ingredients result in the development of new and highly effective products.

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