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Search for compounds with anti-melanogenesis activity from natural sources

FINAL BIOCHEMISTRY AND MOLECULAR BIOLOGY DEGREE PROJECT

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ABSTRACT

Melanogenesis is the complex multistep process of melanin synthesis that takes place in melanocytes. Although melanin has important functions in the human body, an abnormal accumulation causes hyperpigmentation skin disorders, and it is correlated with a higher risk of melanoma and neurodegenerative diseases. This study aimed to perform a screening of natural compounds with potential anti-melanogenesis activity. 4 compounds were tested using a tyrosinase inhibition assay and a quantification of melanin on B16F10 cells. The mechanism of action was evaluated by a Western Blot analysis. One of the 4 compounds displayed promising results on all the assays performed.

Keywords

Melanin, melanogenesis, MTT assay, natural compounds, tyrosinase.

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