

# デルタトコトリエノールはマウスメラノーマ細胞中の メラニン含量の低下を引き起こす

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## **Delta-Tocotrienol Causes Decrease of Melanin Content in Mouse Melanoma Cells**

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**ABSTRACT:** We examined the effect of  $\delta$ -tocotrienol on melanin content in mouse melanoma B16 cells. Melanin content was significantly reduced in cells treated with 50 and 100  $\mu$ M  $\delta$ -tocotrienol, but not 10  $\mu$ M  $\delta$ -tocotrienol. The activity and amount of tyrosinase also significantly decreased in cells treated with 10, 50, and 100  $\mu$ M  $\delta$ -tocotrienol. Furthermore, the mRNA level of tyrosinase as measured using real-time PCR was significantly decreased in cells treated with 100  $\mu$ M  $\delta$ -tocotrienol, but not 10 or 50  $\mu$ M  $\delta$ -tocotrienol. These results indicated that a first  $\delta$ -tocotrienol caused tyrosinase degradation, and then caused a further decrease in the tyrosinase protein level via both tyrosinase degradation and a decrease in the mRNA level of tyrosinase. We conclude that the decrease of melanin content in the cells by  $\delta$ -tocotrienol was the result of the decrease of the protein level of tyrosinase (tyrosinase degradation is more important than the decrease of mRNA).

**抄録** マウスメラノーマ細胞中のメラニン含量に及ぼす $\delta$ -トコトリエノールの効果を調査した。その結果、 $\delta$ -トコトリエノールによるメラニン含量の低下は、チロシナーゼmRNAの低下というよりも、むしろタンパクの分解により引き起こされていることが示唆された。