

中文題目：Chrysophanol抗癌效果之分子機轉

英文題目：Molecular mechanism of anticancer effects of Anthraquinone Chrysophanol

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**Background:** The anthraquinones-containing Chinese medicines have long been used to treat various diseases. Chrysophanol, also called chrysophanic acid, is a fungal isolate and a natural anthraquinone.

**Methods:** We explored the anticancer effect of chrysophanol as well as the molecular biomarkers associated with carcinogenesis in T-lymphoblastic MOLT-3 cells.

**Results:** The results show that chrysophanol suppressed growth and induced apoptosis as proved by various assays. Moreover, chrysophanol also led to lysosomal vacuolation with upregulated volume of acidic compartment, cytotoxicity, together with inhibition of activity of topoisomerase I. Our results suggest that the anticancer activity of chrysophanol *in vitro* involved suppression of cell proliferative markers, activities of topoisomerase I, together with increase of pro-apoptotic molecules, associated with upregulated lysosomal vacuolation.

**Conclusion:** In short, our data suggest that chrysophanol could be a drug for chemopreventive and/or anticancer therapy.