

Scifinder 使用成果

Green tea polyphenol EGCG suppresses lung cancer cell growth through upregulating miR-210 expression caused by stabilizing HIF-1 α

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(-)-Epigallocatechin-3-gallate (EGCG) has been reported to affect many cellular regulatory pathways. This study aims to det. whether EGCG could target microRNA (miRNA), one of the mechanisms for cells to achieve subtle change in multiple targets. We found that, in both human and mouse lung cancer cells in culture, EGCG specifically upregulated the expression of miR-210, a major miRNA regulated by HIF-1 α . Furthermore, we found that overexpression of miR-210 led to reduced cell proliferation rate and anchorage-independent growth as well as reduced sensitivity to EGCG. On the mechanisms of miR-210 regulation by EGCG, we demonstrated that the regulation was mediated through the hypoxia-response element in miR-210 promoter. Consistently, the upregulation of miR-210 was found to be correlated with the stabilized HIF-1 α in lung cancer cell lines after EGCG treatment. This EGCG-induced stabilization of HIF-1 α was further shown by the stabilization of HA-tagged HIF-1 α but not the P402A/P564A-mutated HIF-1 α by EGCG, suggesting that EGCG targets the oxygen-dependent degrdn. (ODD) domain. Direct evidence was obtained by affinity binding assay showing that EGCG specifically binds HIF-1 α with a $K_d = 3.47 \mu\text{M}$. This result suggests that EGCG binding interferes with the hydroxylation of key Pro residues in the ODD domain, preventing HIF-1 α from the Pro hydroxylation-dependent ubiquitination and subsequent proteosome-mediated degrdn. In summary, our results demonstrated, for the first time, the elevation of miR-210 by EGCG in lung cancer cell lines and this is mediated by the stabilization of HIF-1 α . This event contributes to the anticancer activity of EGCG.

search from : <https://scifinder.cas.org/scifinder/view/scifinder/scifinderExplore.jsf>

心得：

因為之前有使用過另一個搜尋軟體查詢一些論文，要輸入很多關鍵字才能找到所需要的論文，但用 Sci finder 只是鍵入兩個關鍵字，馬上跑出一堆的研究論文，原本以為還要一篇篇篩選我要的文章內容，可是幾乎不用，稍微再多打幾個關鍵字就可以找到更接近的文章。還蠻好用的，可是一次只能登入兩個帳號還真的挺麻煩的。因為只要還有其他使用者正在使用或尚未登出就無法登入。這樣如果忽然想到什麼點子或想要查什麼資料就沒辦法得到立即性的資料。

Innovation 查詢使用結果

Health noodles containing green tea for preventing gastric cancer and intestinal cancer

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The title health noodles are manufd. from (by wt. parts): flour 95-97 and green tea powder 3-5. The health noodles are rich in tea polyphenols, caffeine, lipopolysaccharides, and theanine, and can prevent gastric cancer and intestinal cancer, promote digestion, and prevent eye disease. The health noodles have the advantages of high nutrition, good taste, no pigment, and beautiful color.

Patent Information

Patent No.	Kind	Date	Application No.	Date
CN 102178161	A	Sep 14, 2011	CN 2010-10558908	Nov 25, 2010

Priority Application

CN 2010-10558908	Nov 25, 2010
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心得

在當初教如何查詢專利時就很好奇：真的能把所有的專利都收錄嗎？那很多吧？雖然無法證明是不是真的收錄了全部的專利，不過當我隨便的找一些小東西時，竟然發現連一些很平常的東西都有專利，而且還被收錄在裡面！！那這樣，收錄了全部的專利的可能性就更高了。不過最後覺得查一些小東西沒什麼意思，所以便搜尋了看看有哪些關於綠茶中的萃取物有抗癌或預防癌症的效果，不過查到的幾乎都是綠茶內含物的萃取方式、定量方式，關於抗癌的方式和藥物的篇數較於在 scifinder 中查到的就顯得少了好多。是因為做的人不多(生財之道?)還是因為已經沒什麼好做的呢？