

行政院國家科學委員會專題研究計畫 成果報告

DATS 經由基因表現,轉錄,轉譯導致引起人類大腸癌細胞
G2/M 周期的停止和計劃性死亡

計畫類別：個別型計畫

計畫編號：NSC92-2320-B-039-034-

執行期間：92年08月01日至93年07月31日

執行單位：中國醫藥大學微生物學科

計畫主持人：鍾景光

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報告類型：精簡報告

報告附件：出席國際會議研究心得報告及發表論文

處理方式：本計畫可公開查詢

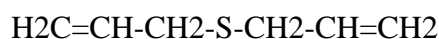
中 華 民 國 93 年 12 月 15 日

The purpose of this experiment was to try to examine the effects of DATS on human colon tumor cells in order to find out the gene expression and apoptosis signals

By Jing-Gung Chung

92-2320-B-039-034-

Chemical studies of garlic have demonstrated that strong smelling compounds by an'allyl' (CH₂=CHCH₂) or methyl grouping bonded to sulfur



Diallyl sulfide (DAS)



Diallyl disulfide (DADS)



Diallyl trisulfide (DATS)

Method for this projects

1. Differential Display (DD-RT-PCR)
2. Flow Cytometry
3. RT-PCR PCR
4. DNA Gel Electrophoresis
5. Western Blotting
6. Multiplex Polymerase Chain Reaction (MPCR)
7. cDNA Microarray

DD RT-PCR

Human colon tumor cells (colo 205)

±50 mM DADS

Incubation for 24hr

Total RNA

cDNA

Primers

(3' primer:5'-AAGCTTTTTTTTTTTA-3'

5' primer:5'-AAGCTTCTCCAACG-3')

PCR

Gel electrophoresis

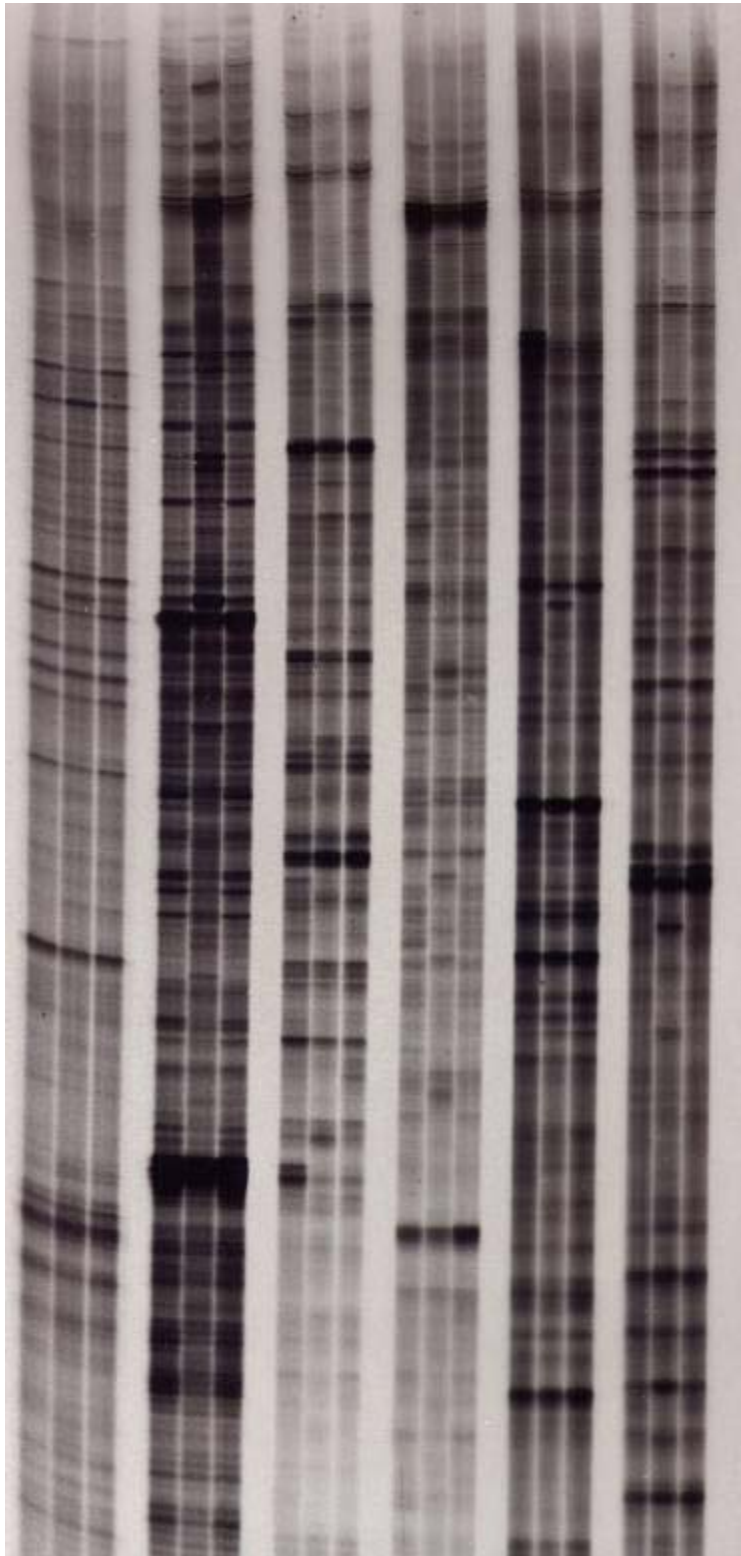
Bands

DNA sequence

cytochrome oxidase subunit I and II

DATS affect the expression of cytochrome oxidase subunit I and II

C 50 5 μ M DATS



Cytochrome c oxidase subunit I (fig. 8A) and II (fig. 8B)

Fig. 8A

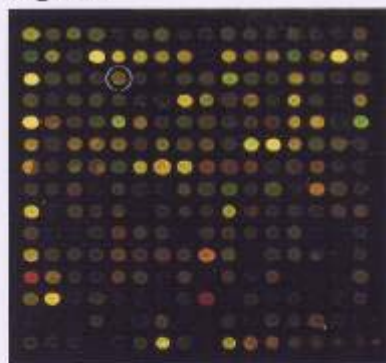
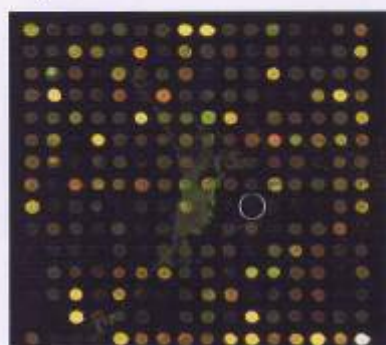


Fig. 8B



The result asr showing in this flow chart

