

玉竹에 관한 抗癌性 Screening의 結果

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**Screening for Antitumor Efficacy  
from the Polygonatum officinale All in Korea**

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## Cytotoxic activity on P388 cells

The MTT(3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) colorimetric assay was performed in a 96-well plate. The blue formazan produced by the mitochondrial dehydrogenase of viable cells was measured spectrophotometrically. 100 $\mu$ l of RPMI-1640 medium supplemented with 5% fetal calf serum and 100 $\mu$ g/ml of kanamycine and containing mouse P388 leukemia cells ( $3 \times 10^4$  cells/ml) was added to each well. After overnight incubation (37 $^{\circ}$ C, 5% CO $_2$ ), 100, 30, 10, 3, 1, 0, 0.3 and 0.1 $\mu$ g/ml of sample solutions were added to the wells and the plates were incubated for 48h. Then, 20 $\mu$ l of MTT was added to each well and the plates were incubated for 4h. The resulting formazan was dissolved in 100 $\mu$ l of 10% SDS (Sodium dodecyl sulfate) containing 0.01 N HCl. Each well was mixed gently with a pipet for 1 or 2 min and the plate was read on a microplate reader (Tosoh MPR-A4i) at 540nm. The IC $_{50}$ ( $\mu$ g/ml) value was defined as the concentration of sample which achieved 50% reduction of viable cells with respect to the control.

### 〈細胞毒性 檢定〉

培養細胞 : P388 Leukemia Cells

(日本 암연구 Center, 化學療法部)

細胞數 :  $3.0 \times 10^4$  Cells/ml의 細胞液을 96穴 Plate에 100 $\mu$ l /well 添加

培地 : RPMI 1640-2ME, 10% FCS

判定 : 藥劑添加後, 約 48時間 培養한 後, MTT試藥(5mg/ml)을 20 $\mu$ l /well 添加하여 4時間 培養後, 10% SDS-0.01NHcl를 100 $\mu$ l /well를 加해서 MTT formazan을 溶解시켜, 檢定群과 對照群과의 比色定量함으로써 判定한다.

그리고 生藥 extract 30 $\mu$ g/ml 濃度以下의 IC $_{50}$ 值가 나타난 것을 有効의 눈금으로 하고있다.

Cytotoxic Activities On P388 Cells

No.	Scientific Name	Crude Drug	Geographical Zone	Concentration( $\mu\text{g/ml}$ )/T/C(%)									
				IC <sub>50</sub>	100	30	10	3	1	0.3	0.1		
①*	Polygonatum Officinale All.	玉竹											
	HOT-VAPOUR TREATED PRODUCTS	九蒸九曝品	SUNNONG WON	6.4	5	4	7	88	99	95	95	95	95
②	NATURAL PRODUCTS	天然品	SUNNONG WON	15.0	28	31	58	73	80	92	92	92	92

\* NINE TIMES BOILED IN THE HOT-VAPOUR AND DRIED IN THE SUN