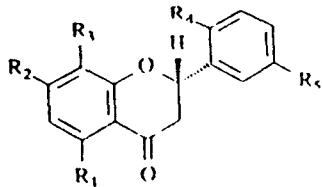
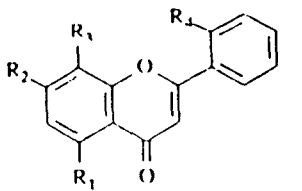


제 목	Cytotoxic and Antitumor Constituents from <i>Scutellaria indica</i>																																												
연구자	KiHwan Bae, ByungSun Min* and ByungZun Ahn																																												
소 속	College of Pharmacy, Chungnam National University																																												
내 용	<p>From the active fraction, cytotoxic constituents 1-5 were isolated and identified to be 2(S)-5,7-dihydroxy-8,2'-dimethoxyflavanone (1), wogonin (5,7-dihydroxy-8-methoxyflavone, 2), 5,7-dihydroxy-8,2'-dimethoxyflavone (3), 2(S)-5,7,2'-trihydroxy-8-methoxyflavanone (4), 2(S)-5,2',5'-trihydroxy-7,8-dimethoxyflavanone (5), respectively, in comparison with those of specimens¹⁻²⁾.</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <table style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <th></th><th>R1</th><th>R2</th><th>R3</th><th>R4</th><th>R5</th><th></th><th>R1</th><th>R2</th><th>R3</th><th>R4</th></tr> <tr> <td>I</td><td>-OH</td><td>-OH</td><td>-OCH₃</td><td>-OCH₃</td><td>H</td><td>II</td><td>-OH</td><td>-OH</td><td>-OCH₃</td><td>-H</td></tr> <tr> <td>IV</td><td>-OH</td><td>-OH</td><td>-OCH₃</td><td>-OH</td><td>H</td><td>III</td><td>-OH</td><td>-OH</td><td>-OCH₃</td><td>-OCH₃</td></tr> <tr> <td>V</td><td>-OH</td><td>-OCH₃</td><td>-OCH₃</td><td>-OH</td><td>-OH</td><td></td><td></td><td></td><td></td><td></td></tr> </table> <p>Among the cytotoxic constituents, 5 showed the most potent activity against L1210 cells with the ED₅₀ values of 0.9 µg/ml, four to five times smaller than the ED₅₀ values (4.2 µg/ml) for the ethereal fraction. Also, it expressed a potent and wide spectrum activity against the other cell lines tested, the ED₅₀ value for HL-60 cells, K562 cells and A549 cells was 0.6 µg/ml, 1.3 µg/ml and 14 µg/ml, respectively. <i>In vivo</i> antitumor tests against sarcoma 180 in ICR mice, constituent 5 (5 mg/kg/day, ip, for 10 days) elongated the life span of the ascitic mice by 42%.</p> <p>1. Tomimori,T., Miyaichi,Y., Imoto,Y., Kizu,H., Namba,T., Chem. Pharm. Bull., 33, 4457 (1985) 2. Miyaichi,Y., Imoto,Y., Tomimori,T., Lin,C.C., Chem. Pharm. Bull., 35, 3720 (1987)</p>		R1	R2	R3	R4	R5		R1	R2	R3	R4	I	-OH	-OH	-OCH ₃	-OCH ₃	H	II	-OH	-OH	-OCH ₃	-H	IV	-OH	-OH	-OCH ₃	-OH	H	III	-OH	-OH	-OCH ₃	-OCH ₃	V	-OH	-OCH ₃	-OCH ₃	-OH	-OH					
	R1	R2	R3	R4	R5		R1	R2	R3	R4																																			
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IV	-OH	-OH	-OCH ₃	-OH	H	III	-OH	-OH	-OCH ₃	-OCH ₃																																			
V	-OH	-OCH ₃	-OCH ₃	-OH	-OH																																								