

Supporting Information to:

**Anti-Angiogenic and Cytotoxicity Studies of Some Medicinal
Plants**

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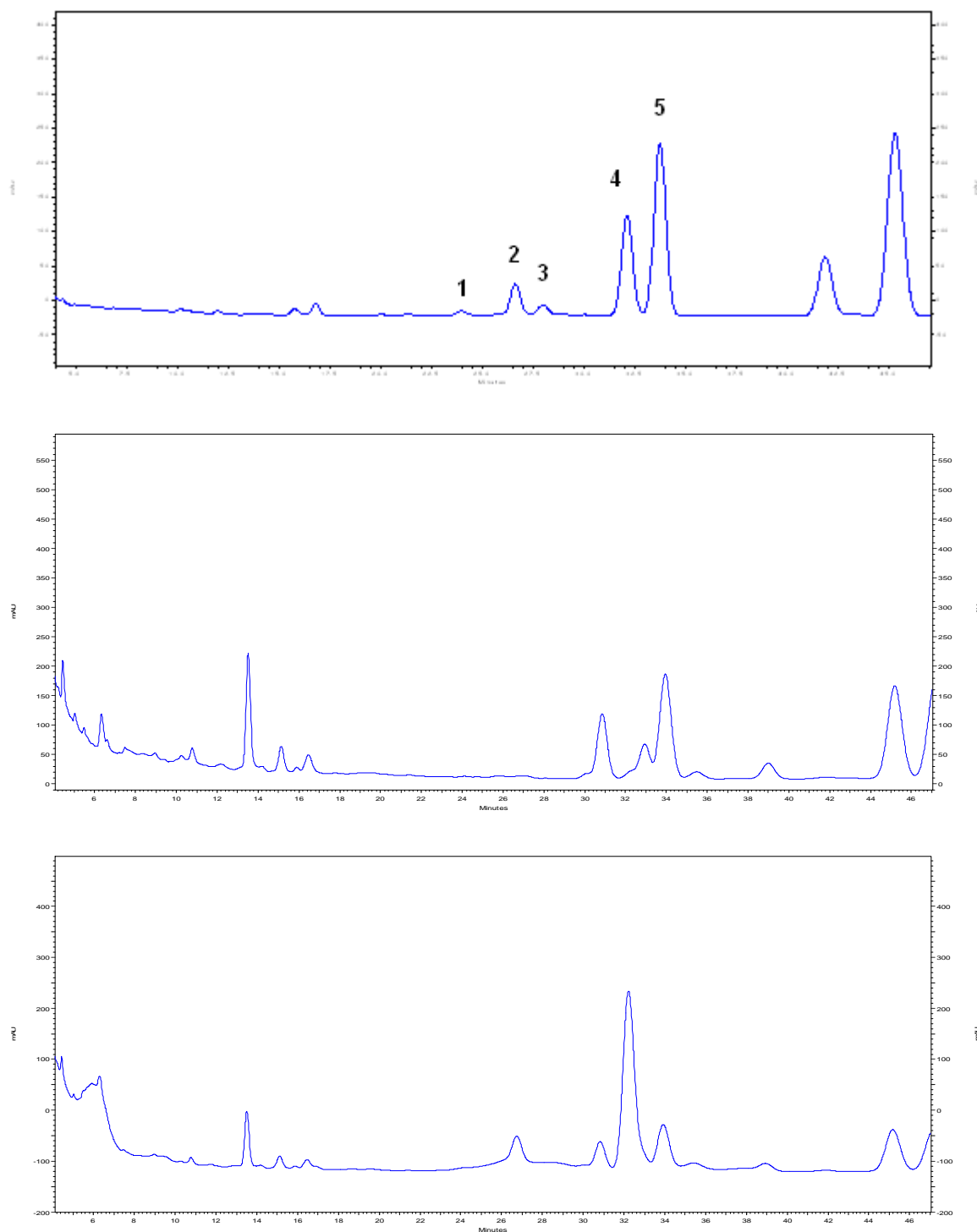


Fig. 1S (From top to bottom) HPLC chromatograph of *P. niruri*, *P. urinaria* and *P. pulcher* at 210 nm (Inertsil ODS-3 reverse phase C-18 column; 5 μ m, 4.6 \times 250 mm; mobile phase MeOH-water 70:30; flow rate of 1 mL/min). 1: phylltetralin, 2: phyllanthin; 3: hypophyllanthin; 4: nirtetralin; 5: niranthin.

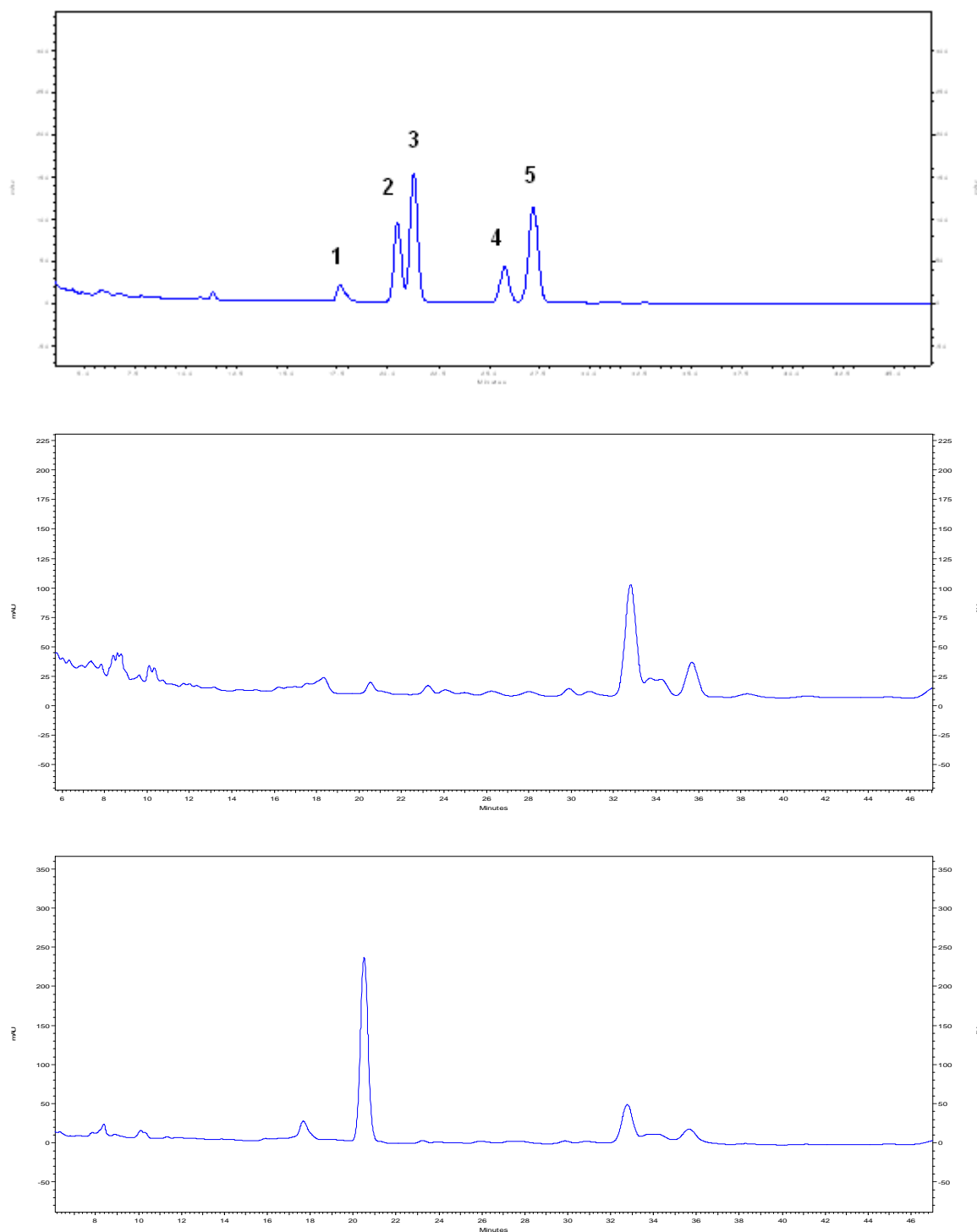


Fig. 2S (From top to bottom) HPLC chromatograph of *P. niruri*, *P. urinaria* and *P. pulcher* at 230 nm (Inertsil ODS-3 reverse phase C-18 column; 5 μ m, 4.6 \times 250 mm; mobile phase MeOH-water 70:30; flow rate of 1 mL/min). 1: phlytetralin, 2: phyllanthin; 3: hypophyllanthin; 4: nirtetralin; 5: niranthin.

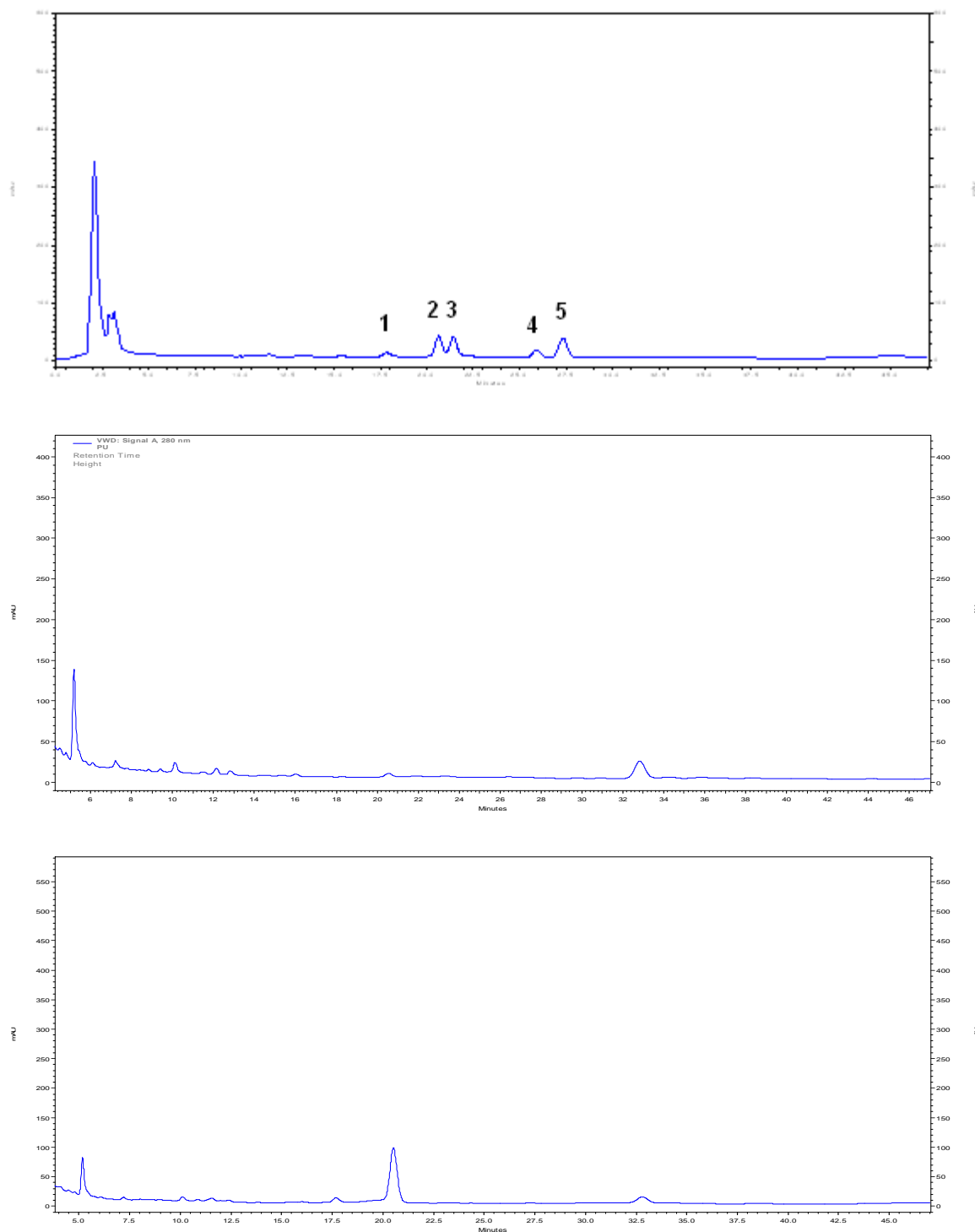


Fig. 3S (From top to bottom) HPLC chromatograph of *P. niruri*, *P. urinaria* and *P. pulcher* at 280 nm (Inertsil ODS-3 reverse phase C-18 column; 5 μ m, 4.6 \times 250 mm; mobile phase MeOH-water 70:30; flow rate of 1 mL/min;). 1: phyltetralin, 2: phyllanthin; 3: hypophyllanthin; 4: nirtetralin; 5: niranthin.

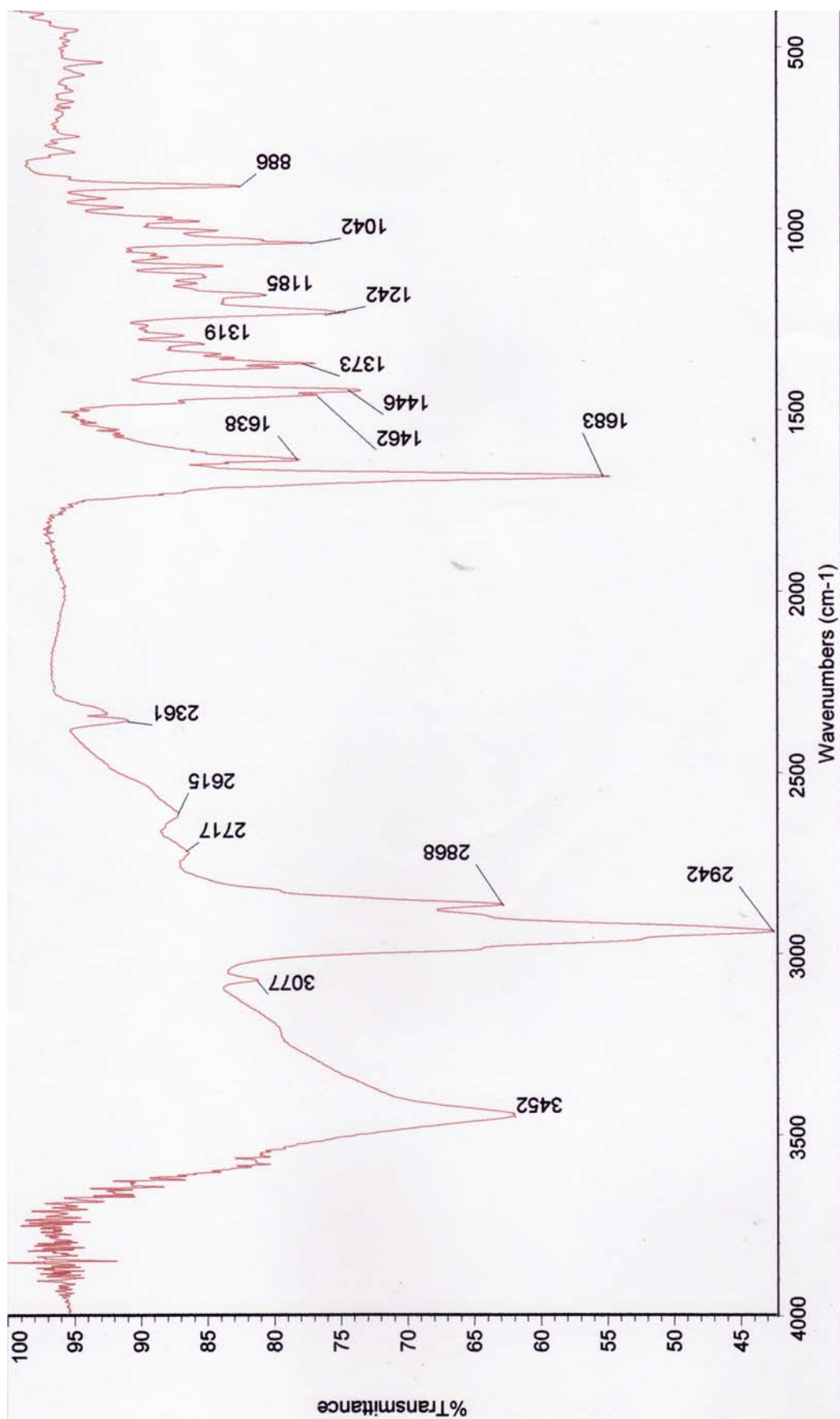


Fig. 4S IR spectrum of betulinic acid.

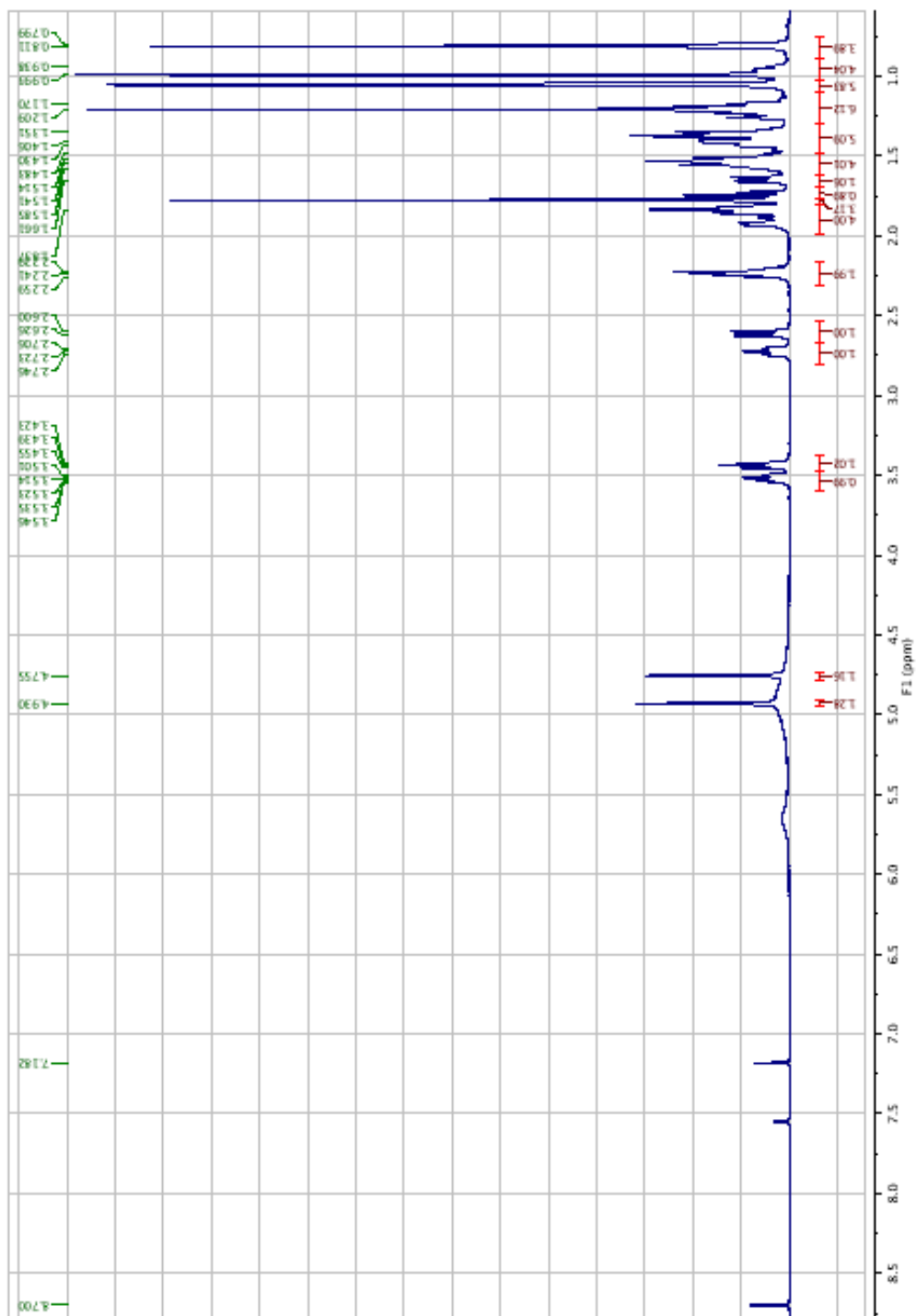


Fig. 5S $^1\text{H-NMR}$ spectrum of betulinic acid.

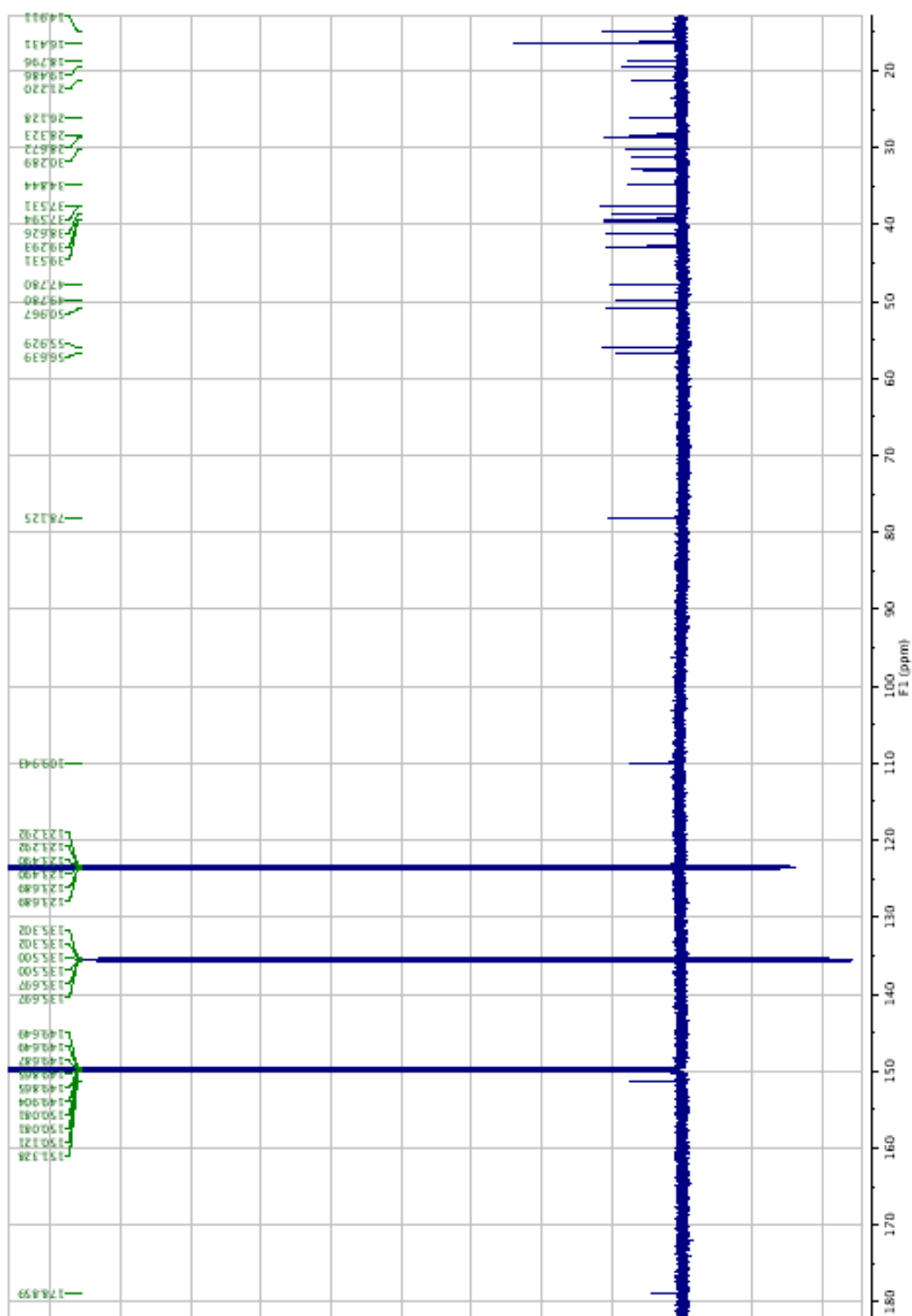


Table 1S ^1H and ^{13}C -NMR assignments of betulinic acid

<i>Position</i>	<i>^1H assignment</i>	<i>^{13}C assignment</i>
1	H α : 0.96; H β : 1.64	39.3
2	H α : 1.82; H β : 1.85	28.3
3	3.42	78.1
4		39.5
5	0.80	55.9
6	H α : 1.52; H β : 1.37	18.8
7	H α : 1.43; H β : 1.37	34.8
8		41.1
9	1.37	51.0
10		37.5
11	H α : 1.40; H β : 1.18	21.2
12	H α : 1.20; H β : 1.92	26.1
13	2.72	38.6
14		42.8
15	H α : 1.23; H β : 1.87	30.3
16	H α : 1.53; H β : 2.62	32.9
17		56.6
18	1.75	49.8
19	3.51	47.8
20		151.3
21	H α : 1.50; H β : 2.23	31.2
22	H α : 1.55; H β : 2.22	37.6
23	1.21	28.7
24	1.00	16.3
25	0.81	16.4
26	1.03	16.4
27	1.05	14.9

28		178.9
29	H α : 4.93; H β : 4.76	109.9
30	1.77	19.5

Table 2S Effect of plant extracts on the viability of HUVEC.

<i>Plants Extracts</i>	<i>Percent viability</i>
Vehicle control	98.39
<i>I. malayana</i>	92.65
<i>P. niruri</i>	95.67
<i>P. urinaria</i>	94.55
<i>P. pulcher</i>	97.65

The cells were treated with vehicle control (0.1% DMSO) and extracts of *I. malayana*, *P. niruri*, *P. urinaria* and *P. pulcher* at 100 $\mu\text{g}/\text{mL}$ in 0.1% DMSO. The cell viability was determined by trypan blue exclusion method. Data represents means from 2 experiments.