

Supporting Information for

Withanolides from the Rhizomes of *Dioscorea japonica* and Their Cytotoxicity

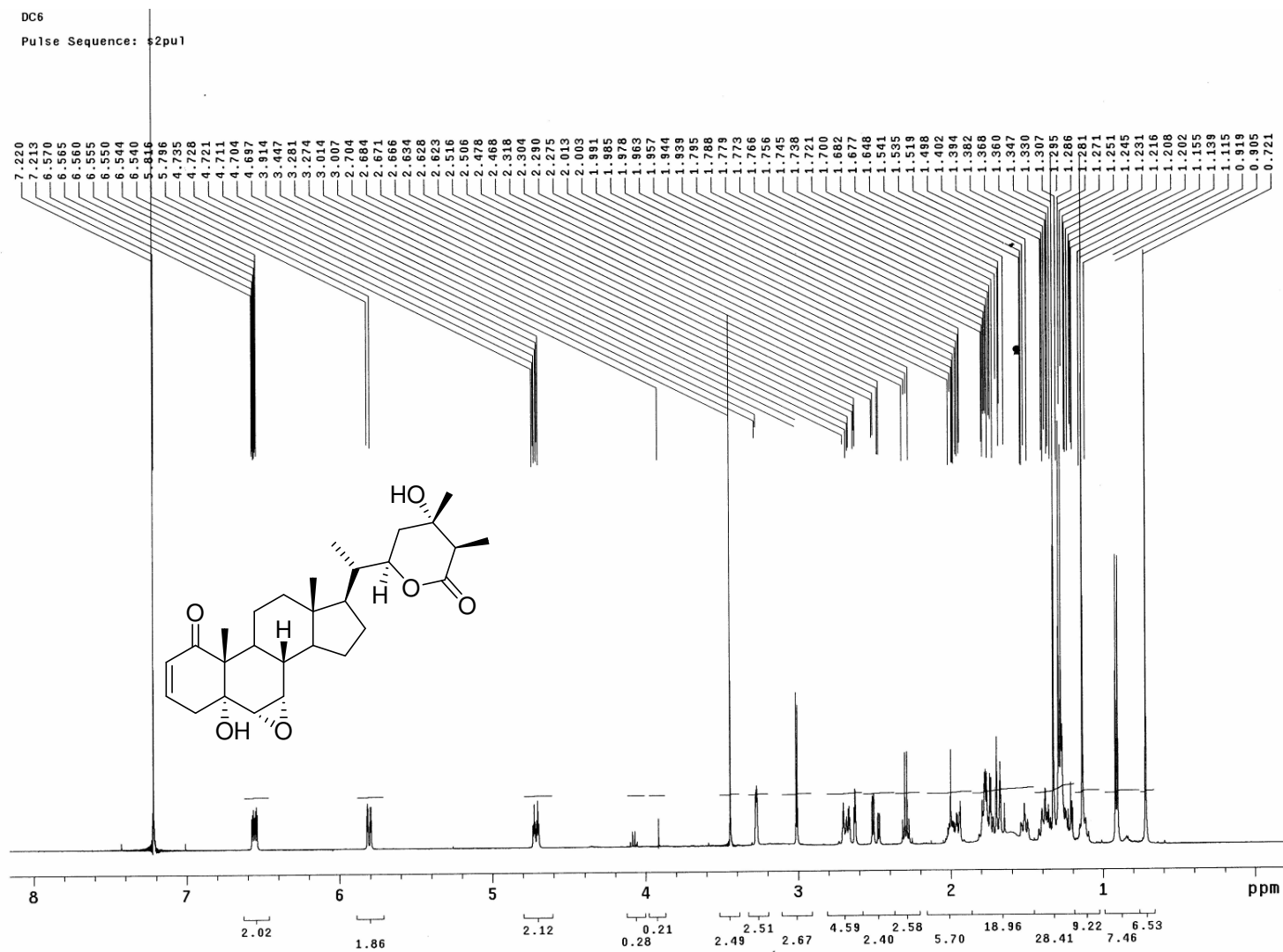
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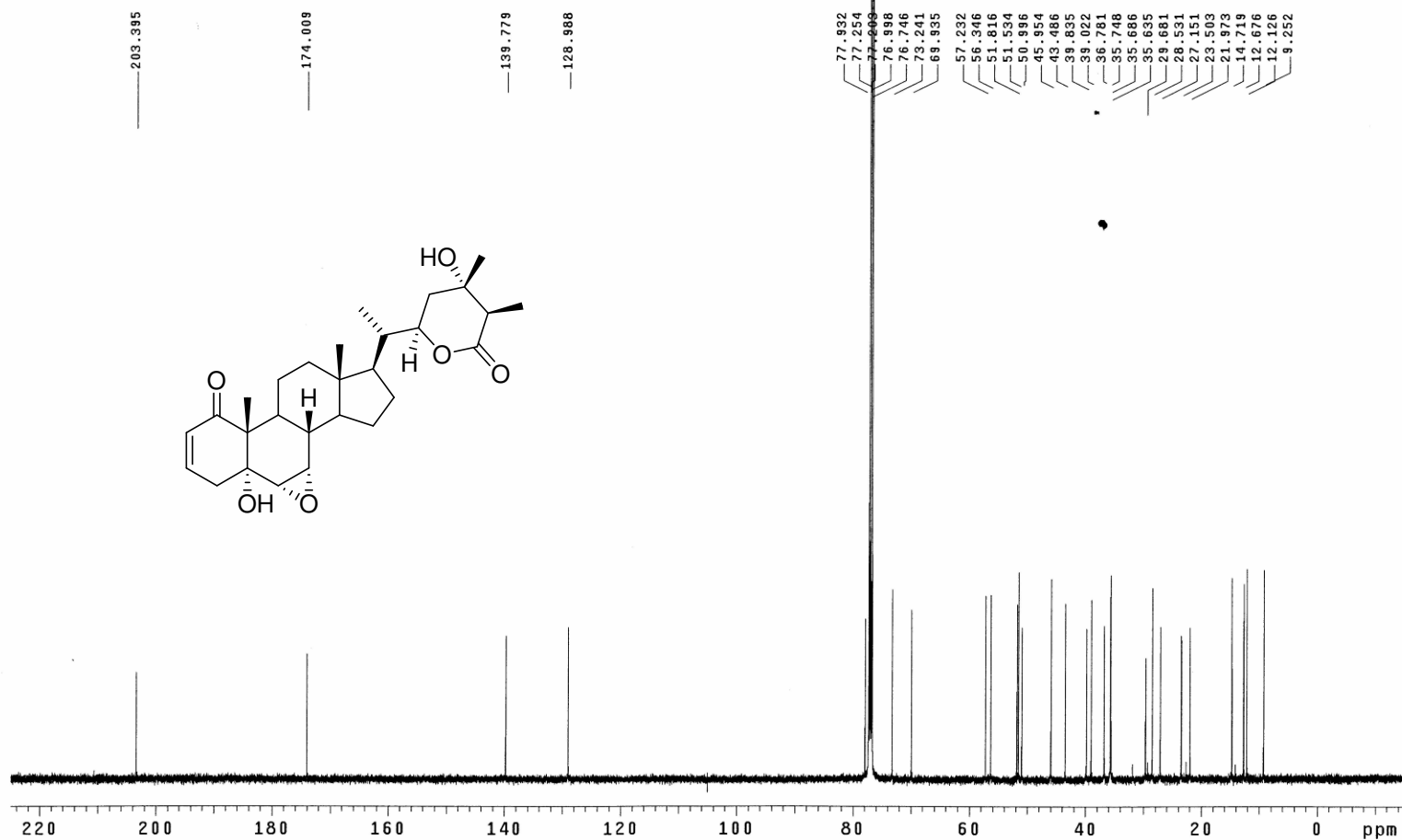
1. The ^1H NMR spectrum of **1** (CDCl_3 , 500 MHz)



2. The ^{13}C NMR spectrum of **1** (CDCl_3 , 125 MHz)

DC6_13C_1D

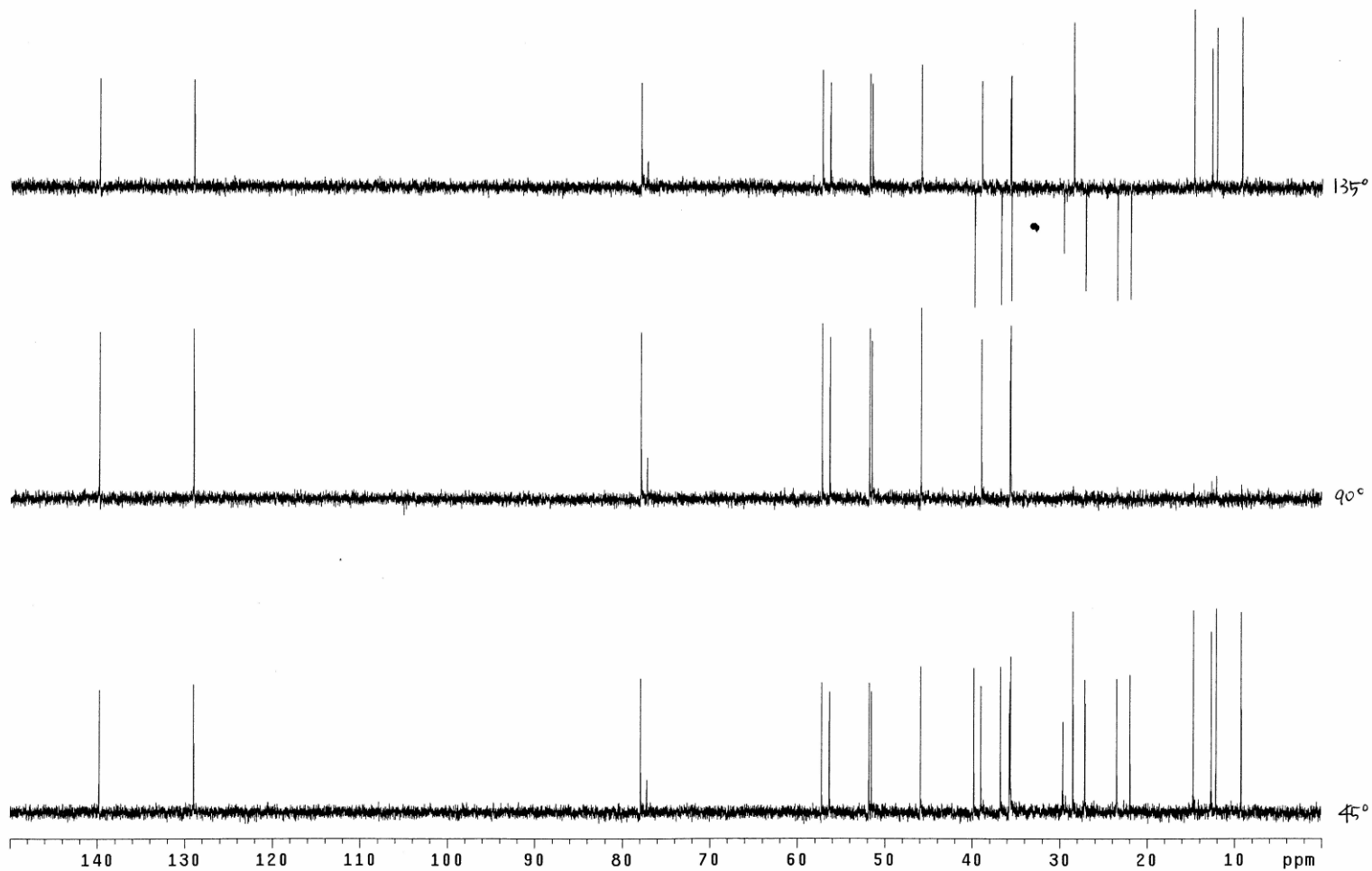
Pulse Sequence: s2pu1



3. The DEPT spectrum of **1**

DC6_DEPT

Pulse Sequence: DEPT

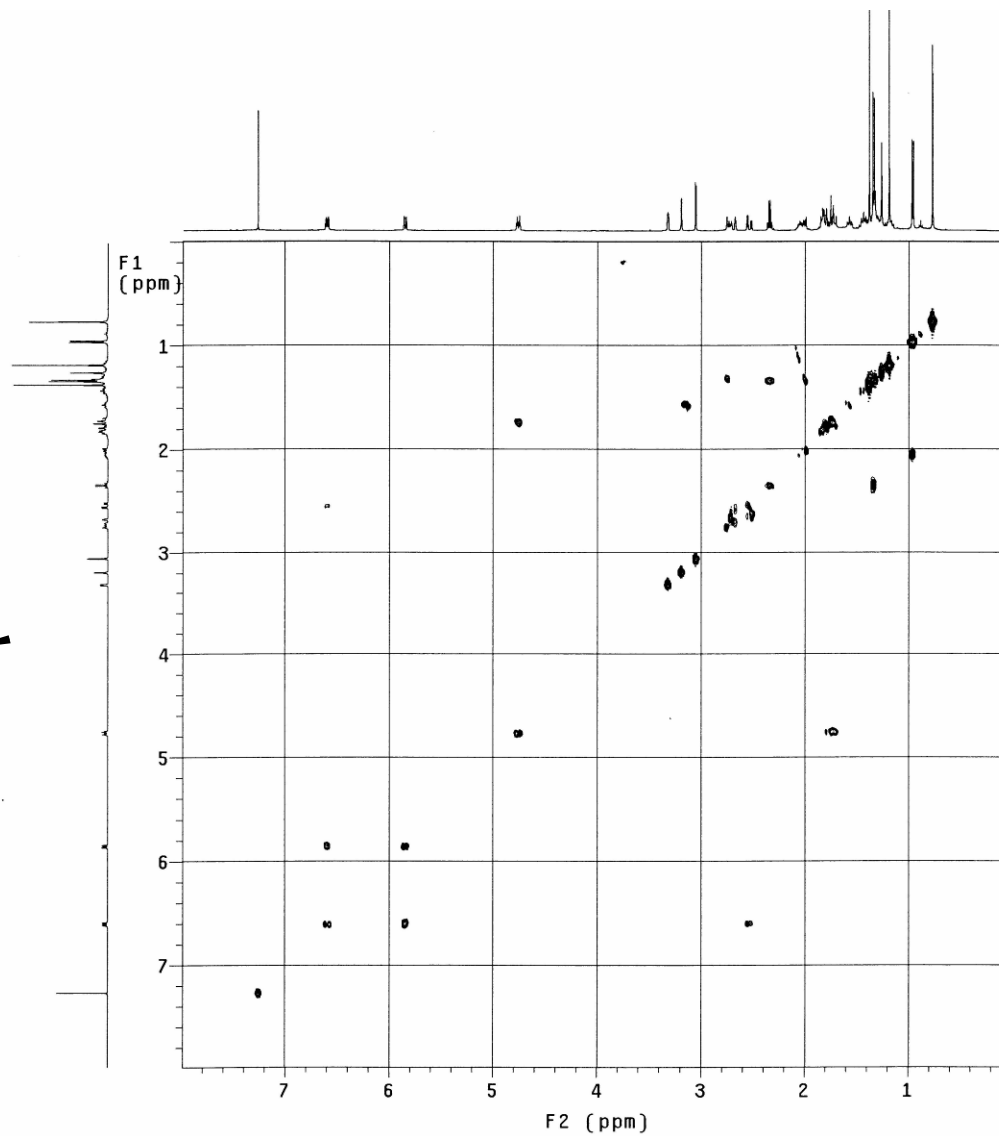
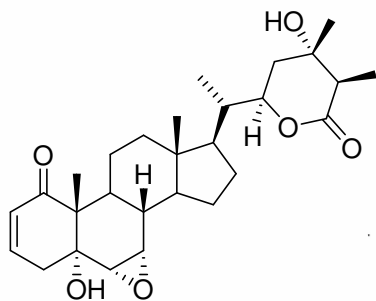


4. The ^1H - ^1H COSY spectrum of **1**

DC6_COSY

Pulse Sequence: gCOSY
Solvent: cdc13
Temp: 25.0 C / 298.1 K
Operator: vnmr1
INOVA-500 "Varian-NMR"

Relax. delay 2.000 sec
Acq. time 0.128 sec
Width 8004.8 Hz
2D Width 8004.8 Hz
48 repetitions
128 increments
OBSERVE H1, 500.2892520 MHz
DATA PROCESSING
Sine bell 0.064 sec
F1 DATA PROCESSING
Sine bell 0.032 sec
FT size 2048 x 2048
Total time 3 hr, 41 min, 3 sec



S5

5. The HMQC spectrum of **1**

DC6_HMQC

Pulse Sequence: gHMQC

Solvent: cdc13

Temp. 25.0 C / 298.1 K

Operator: vnmr1

File: DC6_HMQC

INOVA-500 "Varian-NMR"

Relax. delay 2.000 sec

Acq. time 0.128 sec

Width 8004.8 Hz

2D Width 21384.7 Hz

64 repetitions

2 x 128 increments

OBSERVE H1, 500.3022807 MHz

DECOUPLE C13, 125.8105436 MHz

Power 44 dB

on during acquisition

off during delay

W40_id modulated

DATA PROCESSING

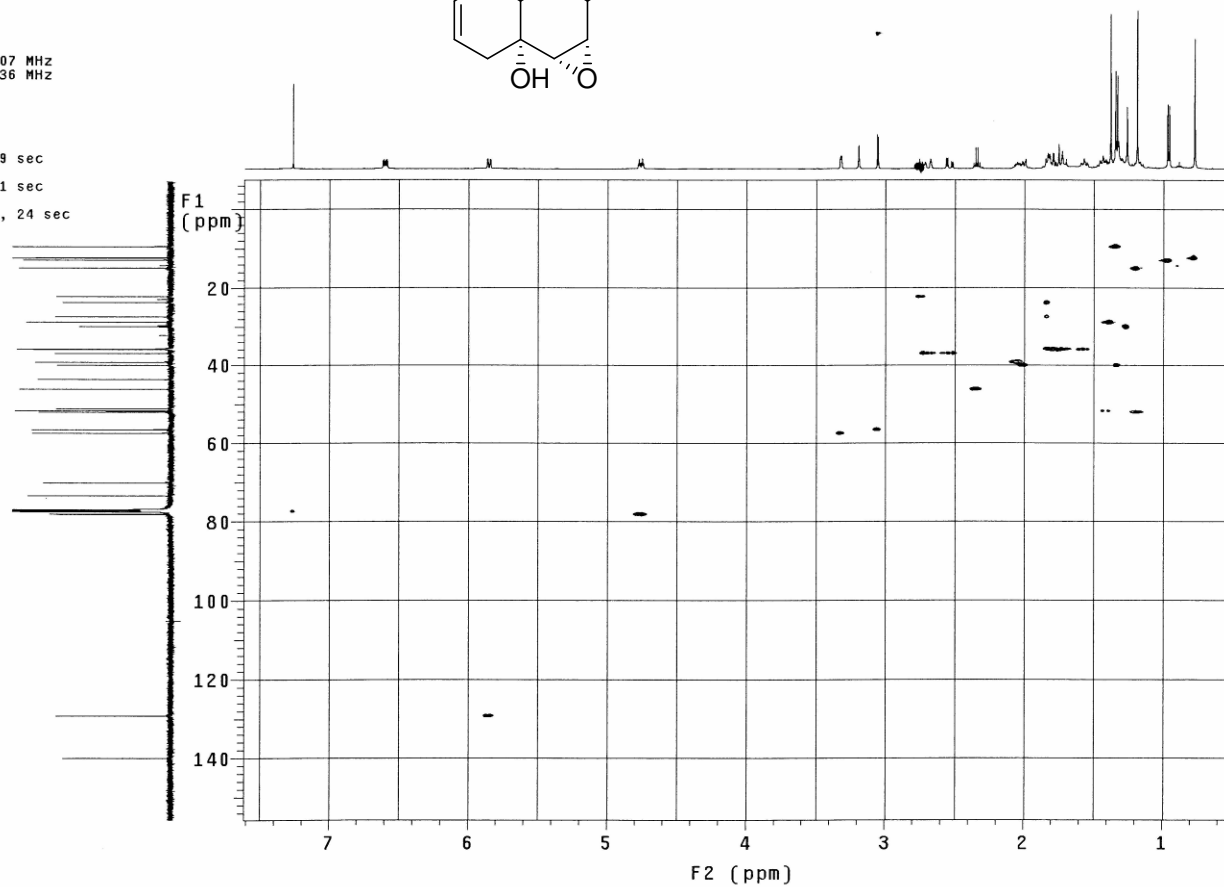
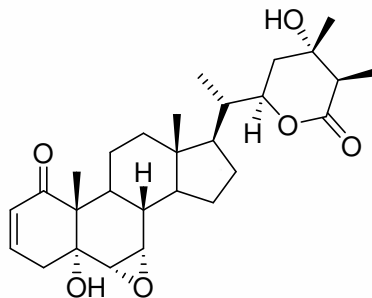
Gauss apodization 0.059 sec

F1 DATA PROCESSING

Gauss apodization 0.011 sec

FT size 4096 x 2048

Total time 9 hr, 54 min, 24 sec



6. The HMBC spectrum of 1

DC6_HMBC

Pulse Sequence: gHMBC

Solvent: cdc13

Temp. 25.0 C / 298.1 K

Operator: vnmr1

File: DC6_HMBC

INOVA-500 "Varian-NMR"

Relax. delay 2.000 sec

Mixing 0.080 sec

Acq. time 0.128 sec

Width 8004.8 Hz

2D Width 30188.7 Hz

96 repetitions

128 increments

OBSERVE H1, 500.3022807 MHz

DATA PROCESSING

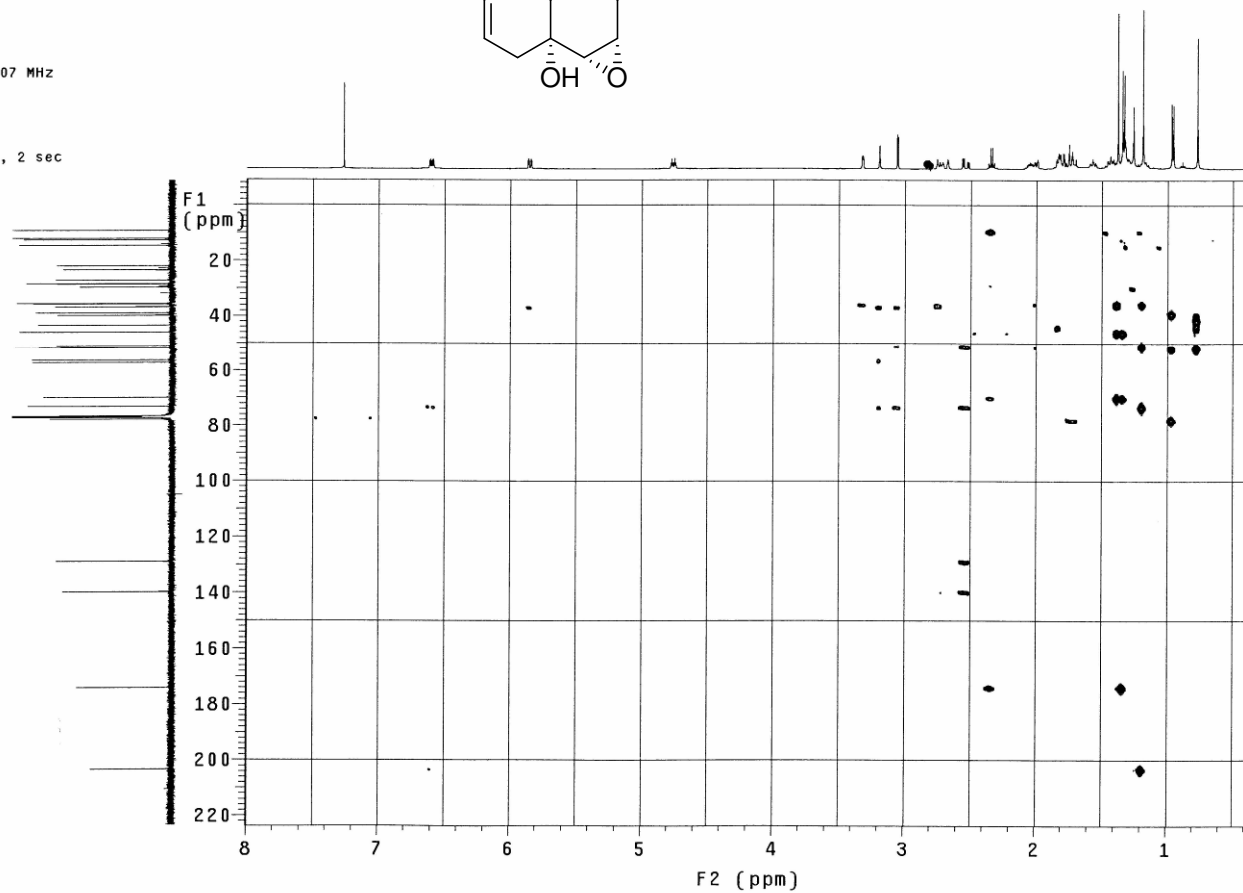
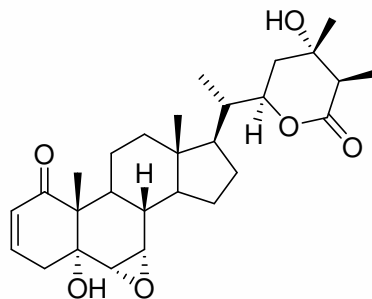
Sine bell 0.064 sec

F1 DATA PROCESSING

Sine bell 0.008 sec

FT size 4096 x 2048

Total time 7 hr, 35 min, 2 sec



7. The NOESY spectrum of **1**

DC6_NOESY

Pulse Sequence: NOESY

Solvent: cdc13

Temp. 25.0 C / 298.1 K

Operator: vnmr1

File: DC6_NOESY_org

INOVA-500 "Varian-NMR"

Relax. delay 2.000 sec

Mixing 0.400 sec

Acq. time 0.128 sec

Width 8004.8 Hz

2D Width 8004.8 Hz

96 repetitions

2 x 128 increments

OBSERVE H1, 500.3022807 MHz

DATA PROCESSING

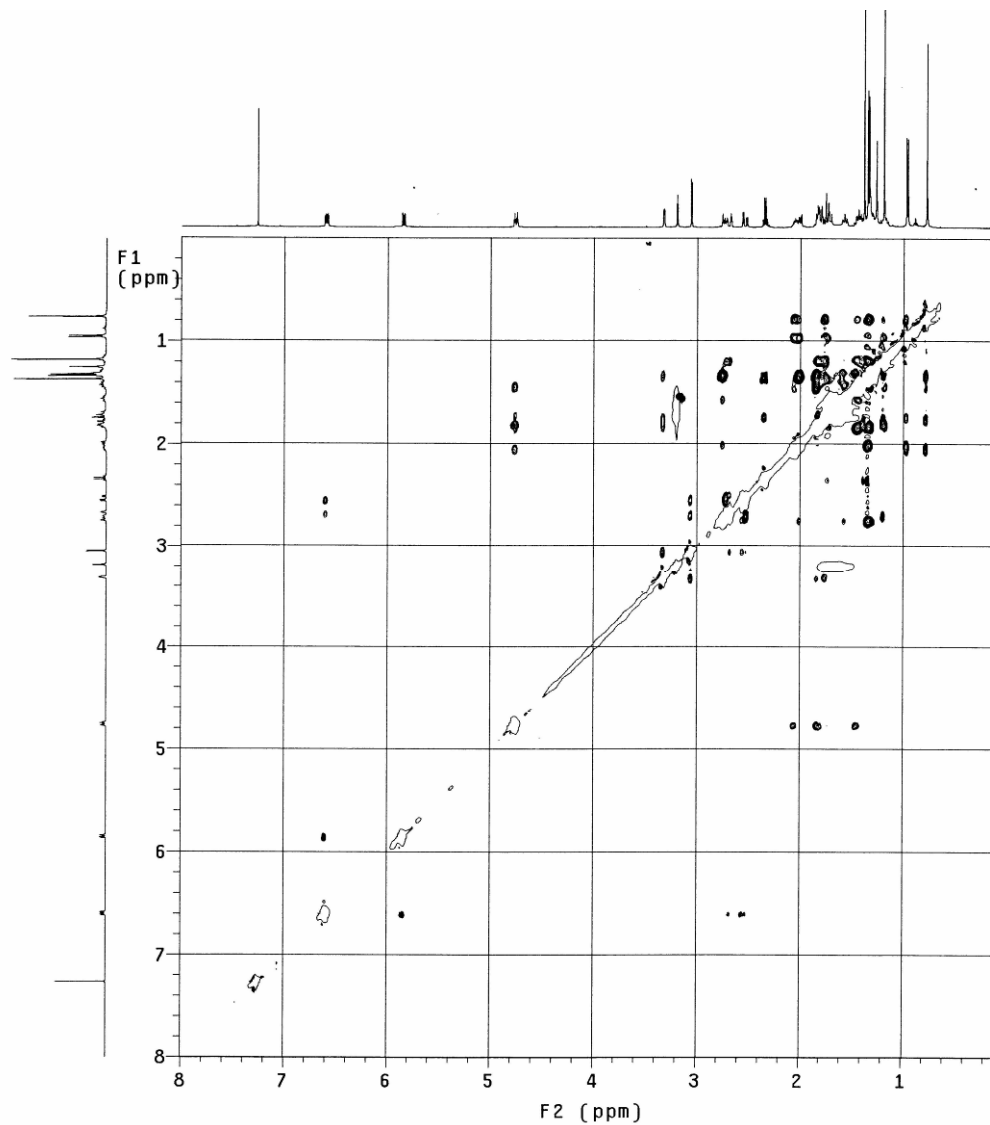
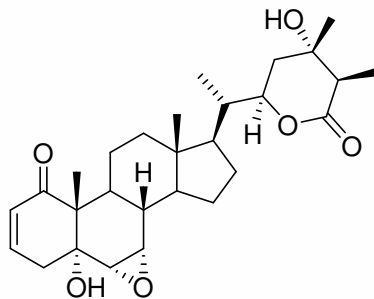
Gauss apodization 0.059 sec

F1 DATA PROCESSING

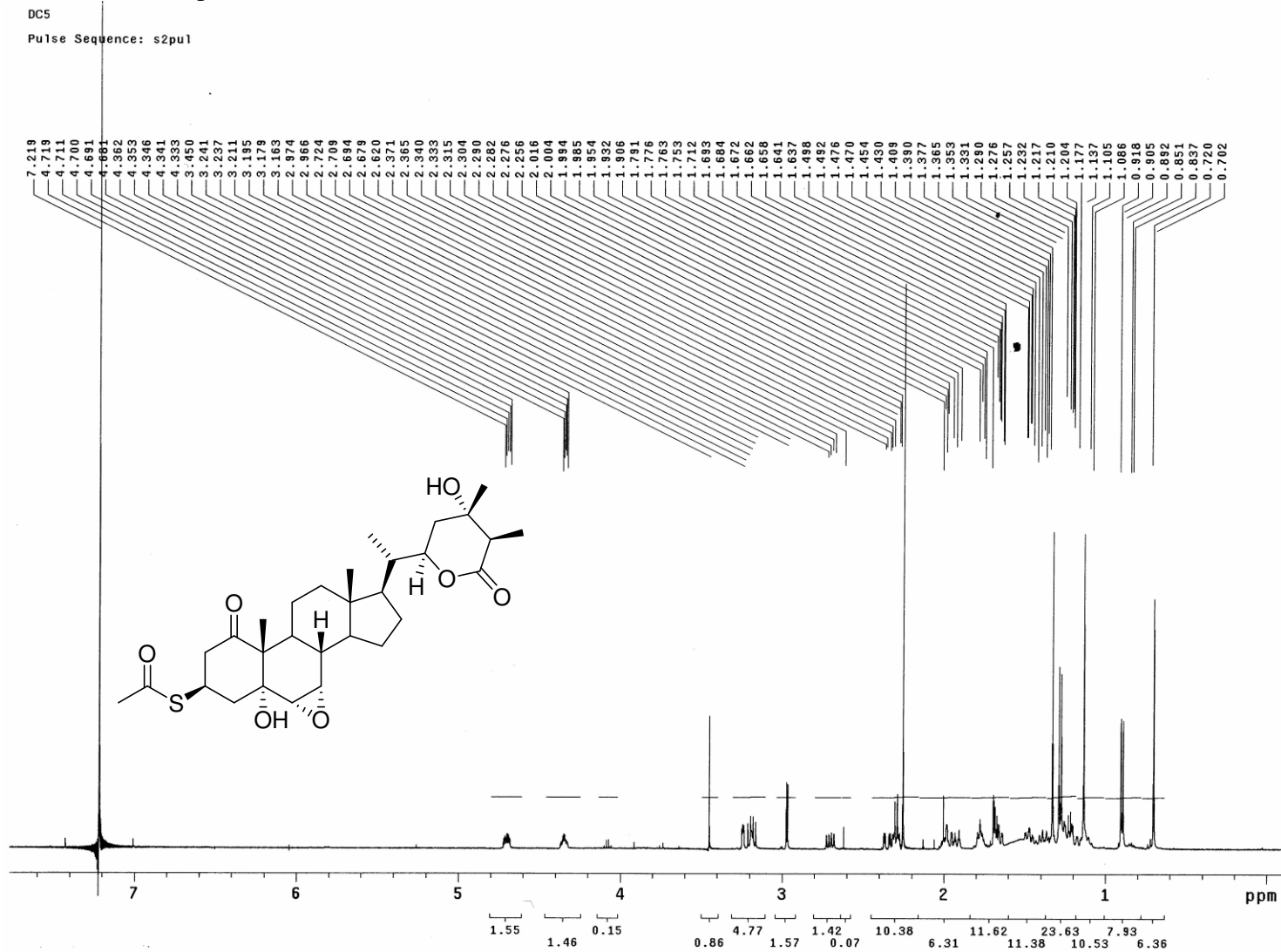
Gauss apodization 0.029 sec

FT size 2048 x 2048

Total time 17 hr, 37 min, 35 sec



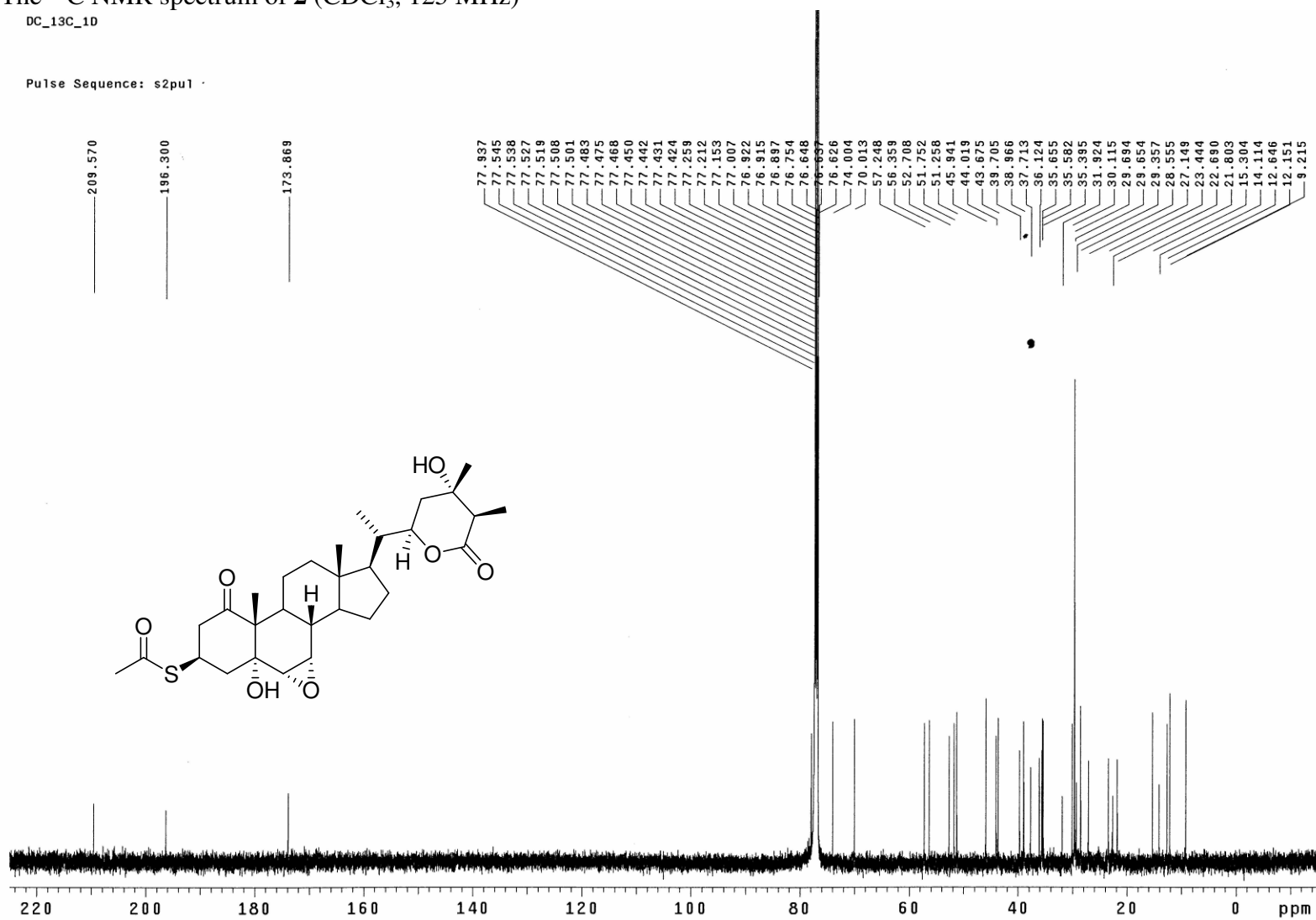
8. The ^1H NMR spectrum of **2** (CDCl_3 , 500 MHz)



9. The ^{13}C NMR spectrum of **2** (CDCl_3 , 125 MHz)

DC_13C_10

Pulse Sequence: s2pu1



10. The ^1H NMR spectrum of the synthesized **2** (CDCl_3 , 500 MHz)

DC5-syn

Pulse Sequence: s2pu1

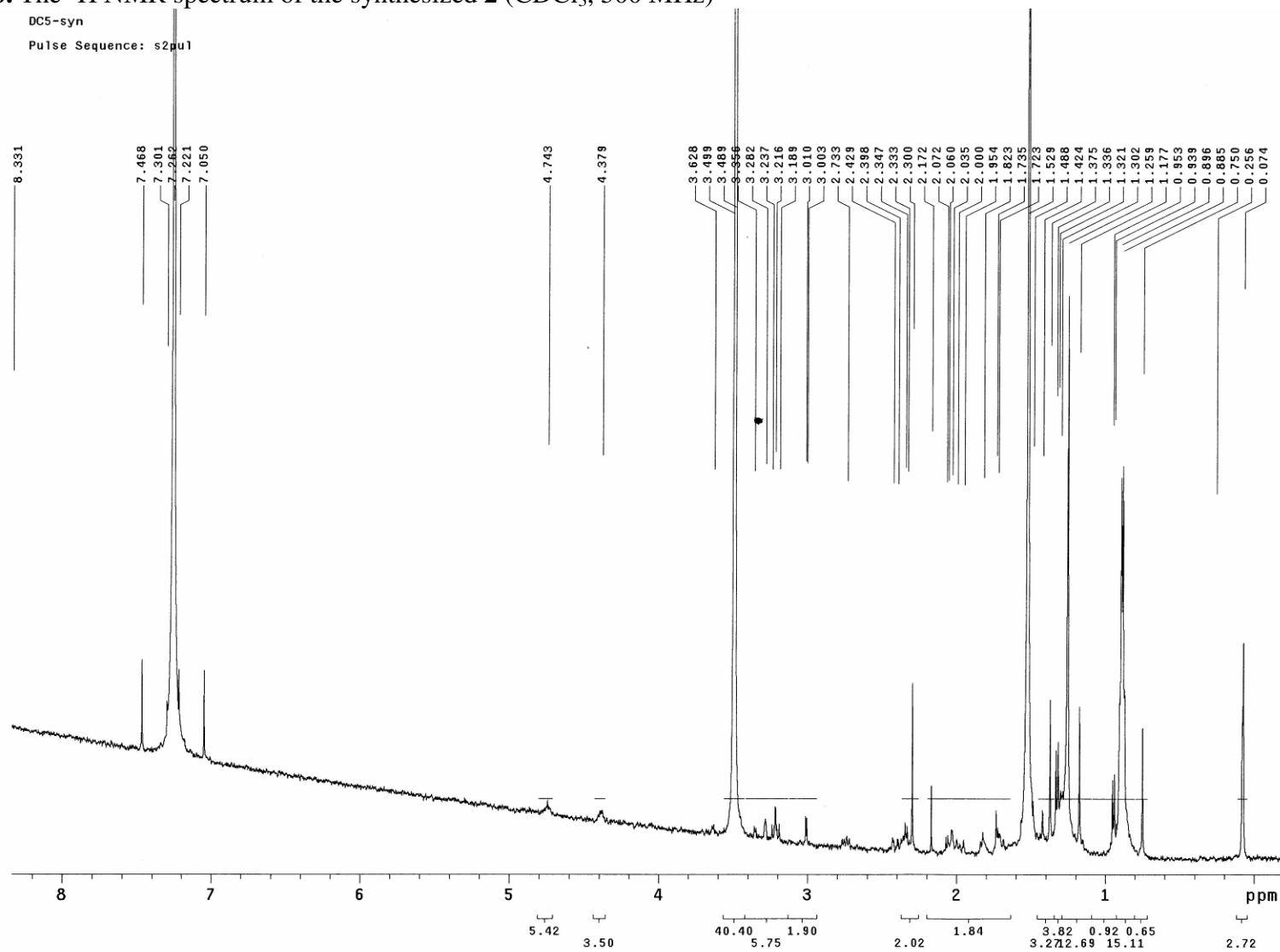


Table S1. Effects of compounds **1-2** on NGF secretion in C6 cells and cell viability^a

Compound	NGF Secretion	Cell Viability
1	102.3±4.6	103.1±5.0
2	101.1±1.3	104.8±3.9

^a C6 cells were treated with 20 μ M of compounds **1-2**. After 24 h, the content of NGF secretion in C6-conditioned media was measured by ELISA, and the cell viability was determined by MTT assay. The level of secreted NGF and viable cells expressed as percentage of untreated control. The data shown represent the means \pm SD of three independent experiments performed in triplicate.