

Table S1. The common chemical identifiers of compound 2.

(chemical structure lookup service (CSLS), <https://cactus.nci.nih.gov/>)

Structure Identifier	Representation of the Identifier
Chemical Name	2-butyl-6-phenyl-4,5-dihdropyridazin-3(2H)-one
Chemical Formula	C ₁₄ H ₁₈ N ₂ O
Molecular Weight	230.309
CAS Registry Number	1532529-93-3
Standard InChIKey	WVMAESKYYZHCBP-UHFFFAOYSA-N
Standard InChI	1S/C14H18N2O/c1-2-3-11-16-14(17)10-9-13(15-16)12-7-5-4-6-8-12/h4-8H,2-3,9-11H2,1H3
SMILES	CCCCN1N=C(CCC1=O)c2ccccc2
FICTS	4D7287724021B36A-FICTS-01-12
FICuS	4D7287724021B36A-FICuS-01-33
Uuuuu	4D7287724021B36A-uuuuu-01-E2
Cactus HASHISY	4D72877240 21B36A

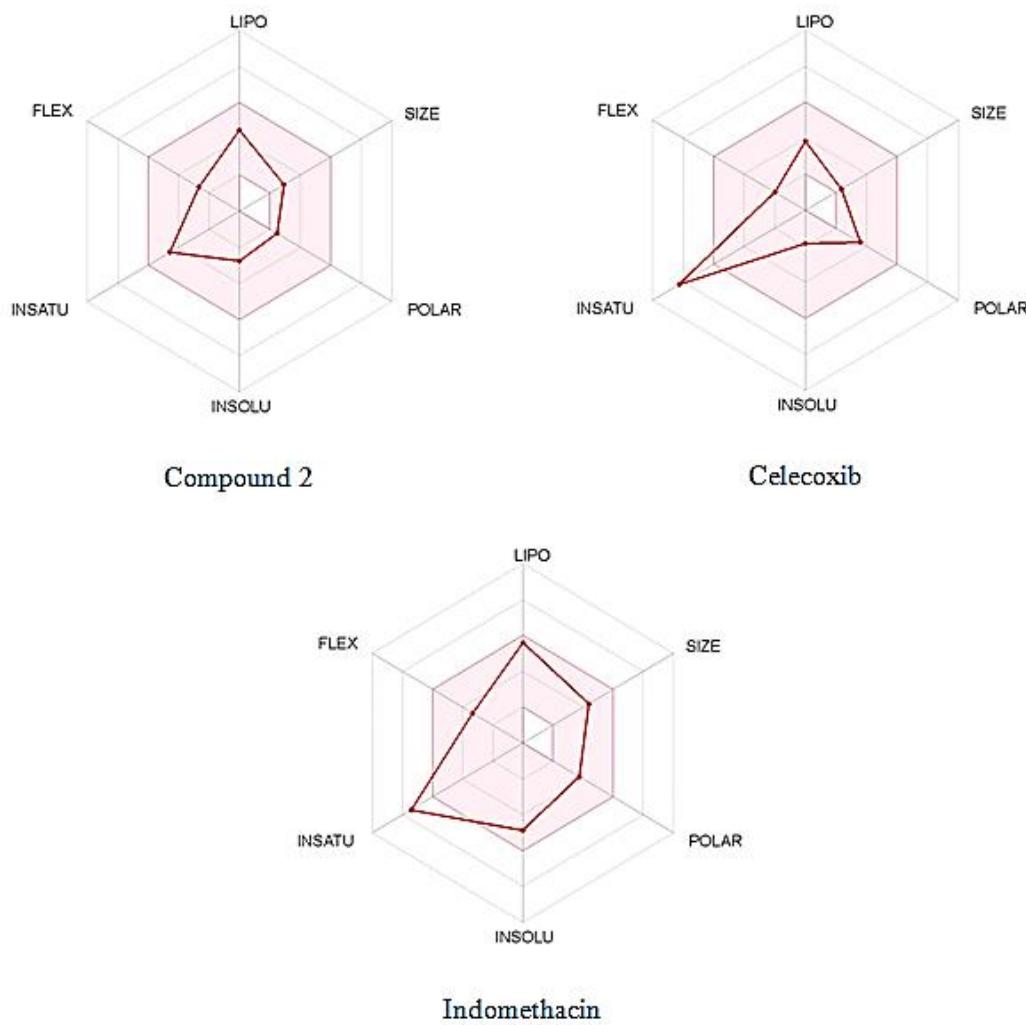


Figure S1. The bioavailability radar of compound **2**, celecoxib, and indomethacin.

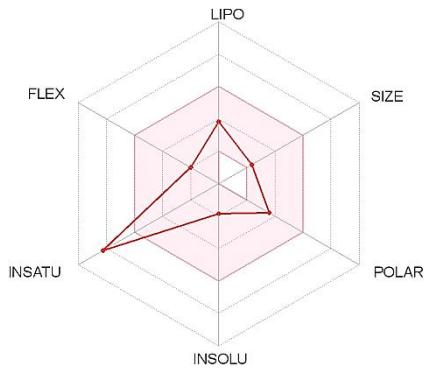


Figure S1-1: The bioavailability radar of aspirin

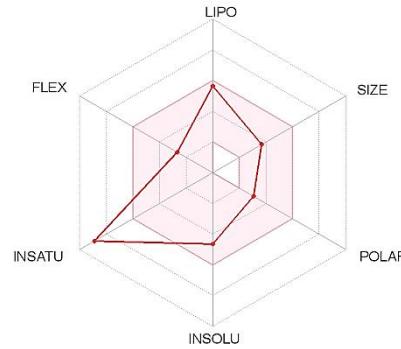


Figure S1-2: The bioavailability radar of diclofenac

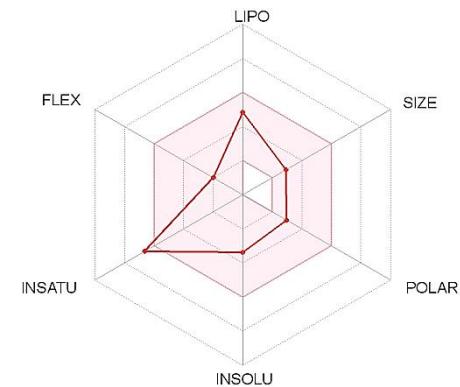


Figure S1-3: The bioavailability radar of naproxen

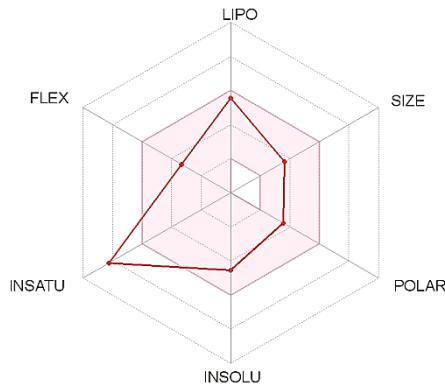


Figure S1-4: The bioavailability radar of oxaprozin

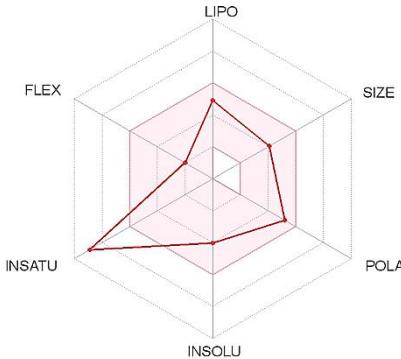


Figure S1-5: The bioavailability radar of piroxicam

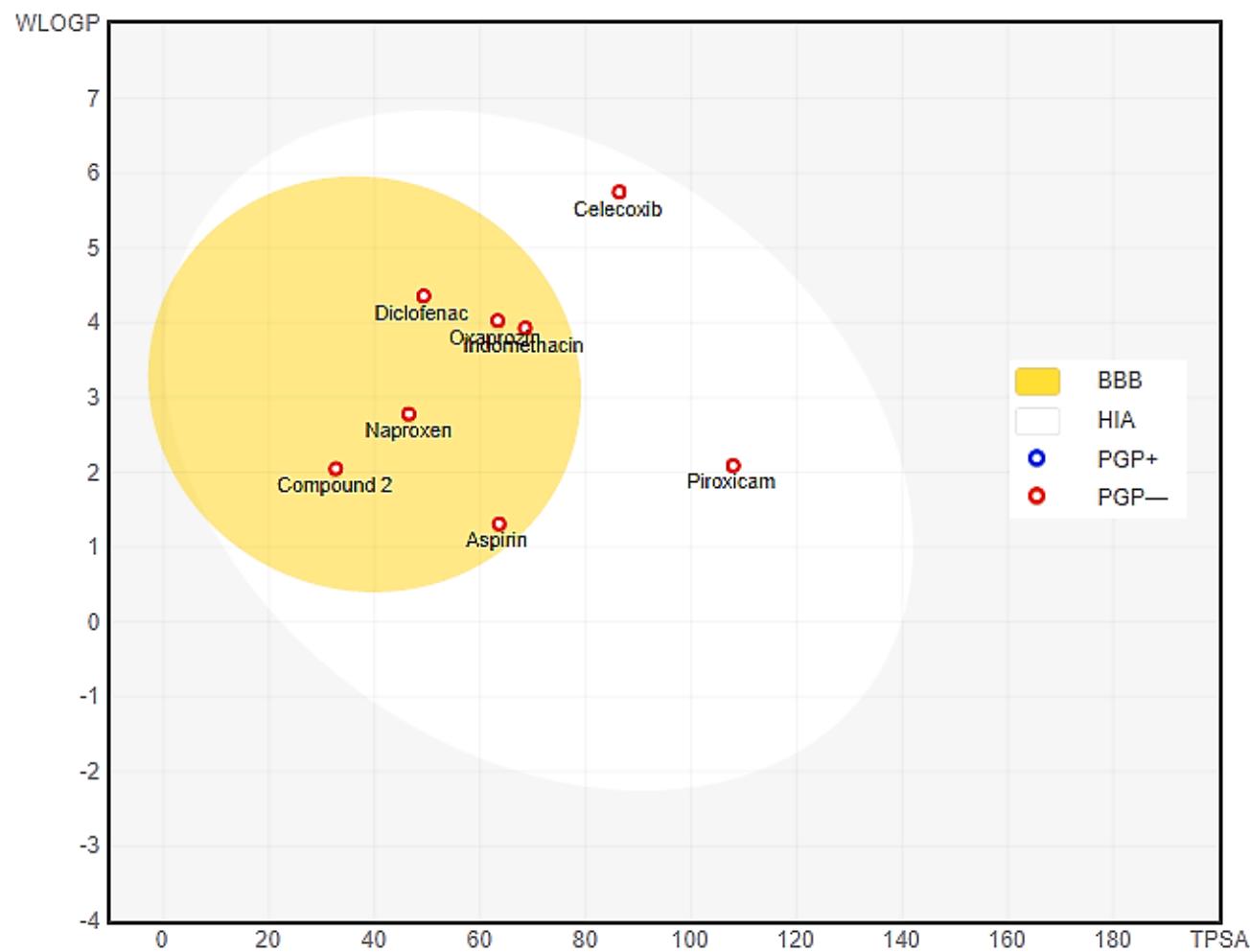


Figure S2. The BOILED-Egg model representation of compound 2 and selected NSAIDs.

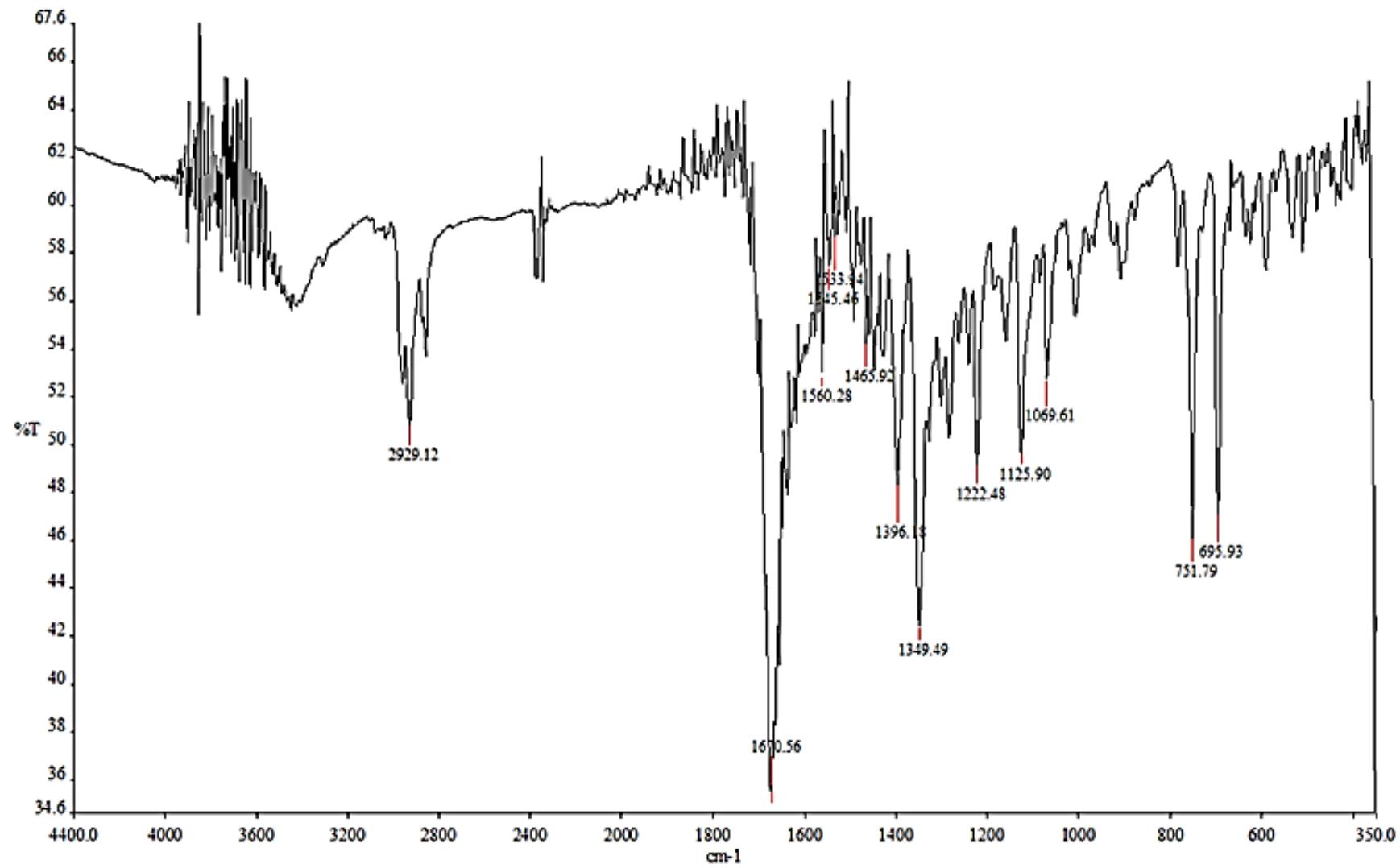


Figure S3. FTIR of compound 2

{C:\Bruker\TOPSP}

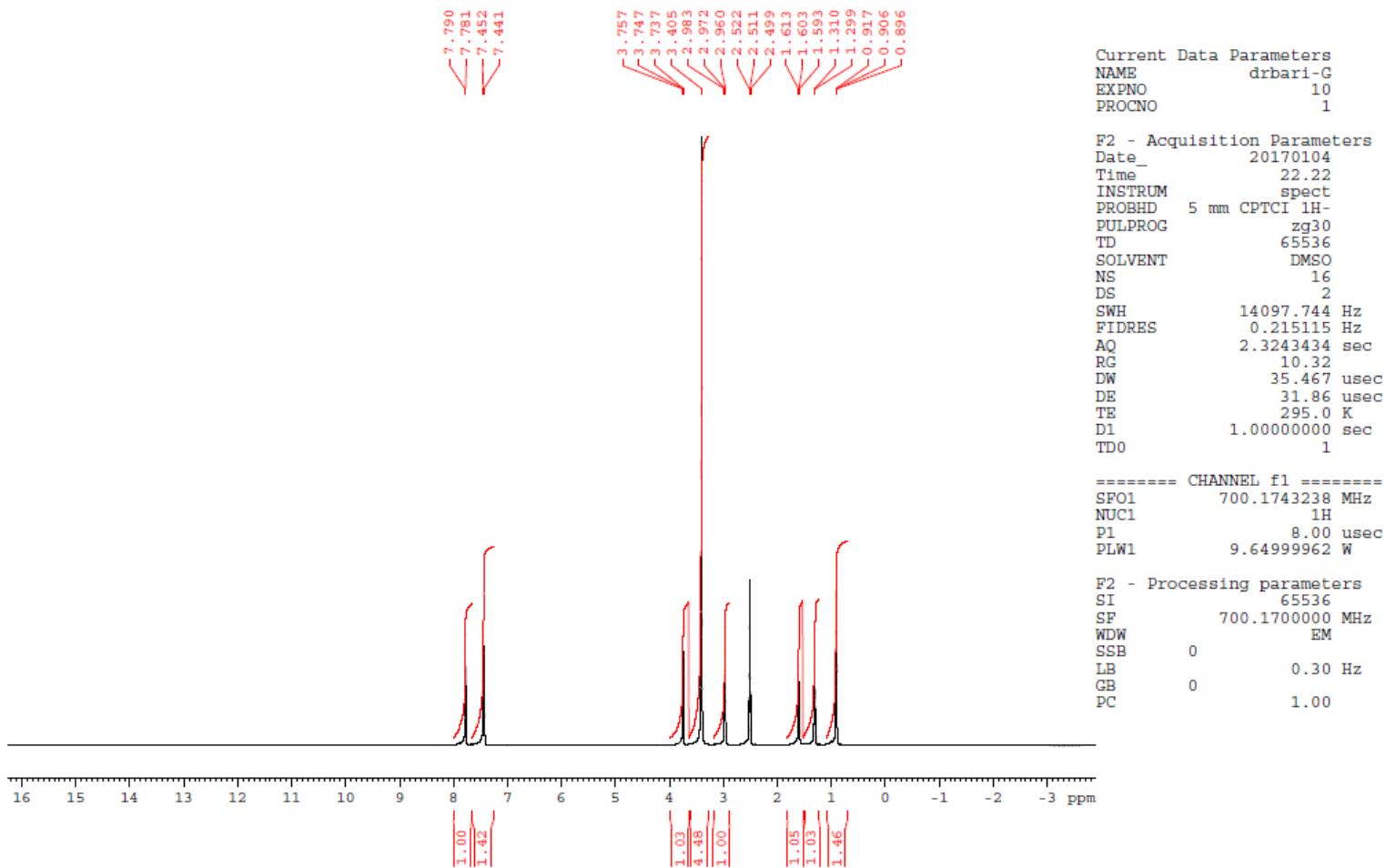
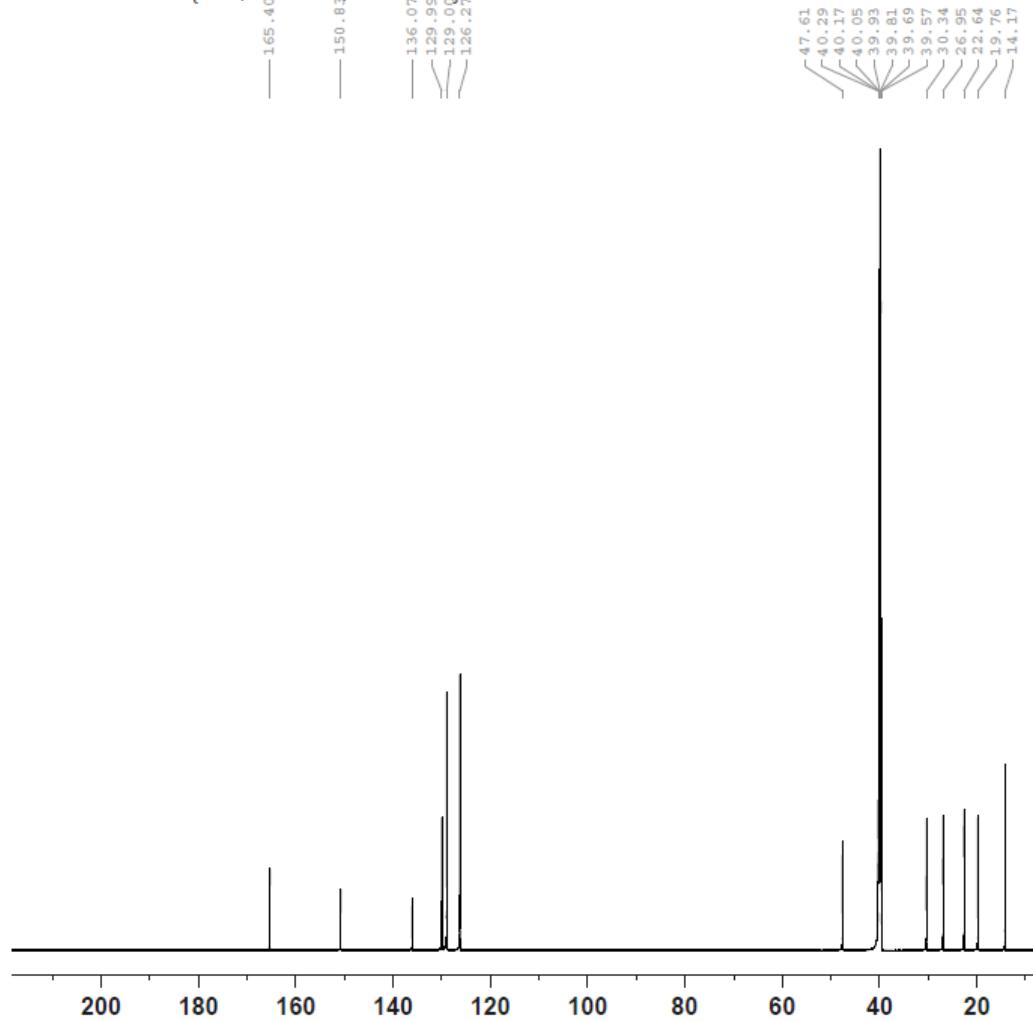


Figure S4. ^1H -NMR of compound **2**.

C13CPD DMSO {C:\Bruker\TOPSPIN} abari 33



Current Data Parameters
NAME drbari-G
EXPNO 11
PROCNO 1

F2 - Acquisition Parameters
Date_ 20170105
Time 0.01
INSTRUM spect
PROBHD 5 mm CPTCI 1H-
PULPROG zgppg30
TD 65536
SOLVENT DMSO
NS 2048
DS 4
SWH 41666.668 Hz
FIDRES 0.635783 Hz
AQ 0.7864320 sec
RG 172.3
DW 12.000 usec
DE 18.00 usec
TE 295.0 K
D1 2.0000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 176.0754915 MHz
NUC1 13C
P1 12.00 usec
PLW1 121.00000000 W

===== CHANNEL f2 =====
SFO2 700.1728007 MHz
NUC2 1H
CPDPRG[2] waltz16
PCPD2 65.00 usec
PLW2 9.64999962 W
PLW12 0.14618000 W
PLW13 0.06176000 W

F2 - Processing parameters
SI 32768
SF 176.0578870 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

Figure S5. ^{13}C -NMR of compound 2.

[Mass Spectrum]
Data : KSU-DI-EI-R5k-DR.UBRID_G001 Date : 04-Jun-2017 12:54
Sample : -
Note : -
Inlet : Direct Ion Mode : EI+
Spectrum Type : Normal Ion (MF-Linear)
RT : 0.38 min Scan# : (4,10)
BP : m/z 158.9773 Int. : 340.55
Output m/z range : 50.0000 to 261.4243 Cut Level : 0.20 %

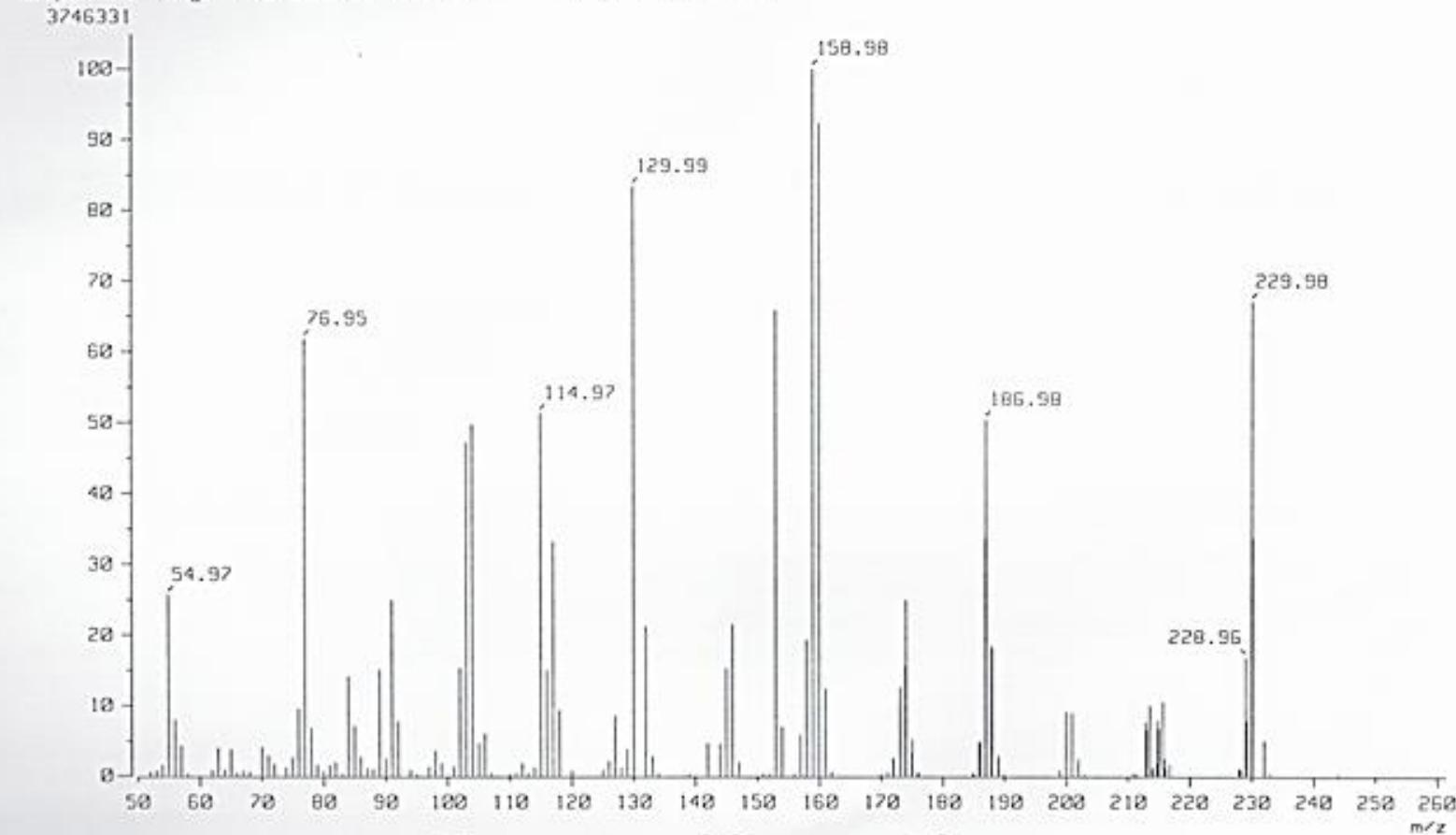


Figure S6. Mass spectra of compound 2.