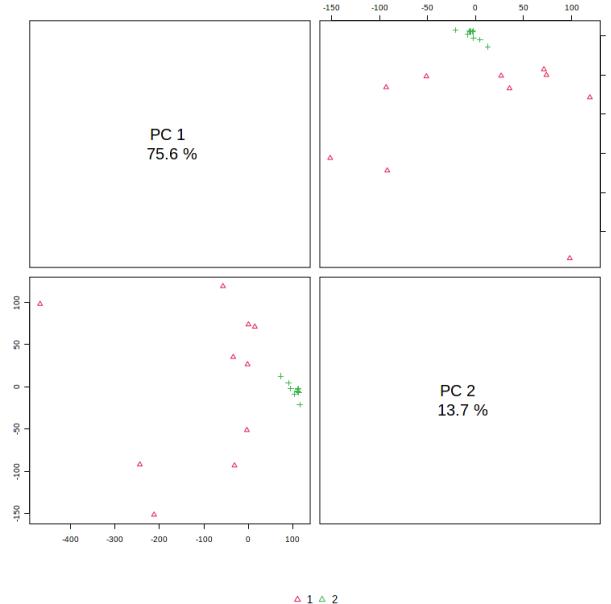


## Supplementary Material



**Figure S1** PC1 and PC2 score plot from  $^1\text{H}$  NMR, red triangles corresponding to methanolic fraction and green to aqueous fraction, explained variance is shown in the corresponding diagonal cell.

**Table S1** Effects of the methanol extract (M1), imipramine (IMI), and fluoxetine (FLX) on the ambulatory activity in the Open Field Test.

Acute treatment	Doses (mg/kg)	Rearings number	Count number
CTL	0	33.6 $\pm$ 1.3	45.0 $\pm$ 2.3
M1	25	30.1 $\pm$ 1.8	44.0 $\pm$ 2.1
	50	27.6 $\pm$ 2.1	41.7 $\pm$ 2.2
	100	29.7 $\pm$ 0.9	40.0 $\pm$ 2.4
	200	29.1 $\pm$ 2.4	41.8 $\pm$ 2.7
	400	29.2 $\pm$ 1.8	41.8 $\pm$ 2.7
	25	29.5 $\pm$ 1.33	40.7 $\pm$ 2.4
		H= 5.99, fd= 6, p= 0.42	H= 2.3, fd= 6, p= 0.88
Repeated treatment (7days)	0	28.3 $\pm$ 2.5	42.7 $\pm$ 4.6
	25	27.0 $\pm$ 1.8	46.33.0
	50	29.0 $\pm$ 3.1	45.2 $\pm$ 4.4
	100	25.0 $\pm$ 0.8	42.2 $\pm$ 2.8
	200	27.3 $\pm$ 2.8	39.6 $\pm$ 3.4
	5	28.2 $\pm$ 1.5	49.12 $\pm$ 4.6
		H= 2.31, fd= 5, p=0.80	H= 4.369, fd=5, p= 0.49

**Table S2** Effect of diazepam (DZ) on the ethological behaviors on the Elevated Plus Maze Test (EPM). \* p≤ 0.05, \*\* p≤ 0.01, \*\*\* p ≤ 0.001

Treatment/dose (mg/kg)	CPT (s) mean± sem	head dipping number (mean± sem)	stretches number (mean± sem)
CTL	82.8 ±6.1	15.7±0.8	31.8±1.9
25	83.4±9.2	20.7±1.5*	23.8±1.8
50	77.7±12.8	30.7±2.1***	18.0±1.0***
100	64.1±1.1	30.2±2.3***	21.3±1.1***
200	87.0±10.09	17.7±1.3	24.6±0.8***
400	69.3±5.6	13.7±1.0	27.7±1.8
	H=6.4, fd=5, p=0.26	H=32.3, fd=5, p≤0.001	H=25.2, fd=5, p≤0.001
CTL	66.9±5.1	16.7 ±0.6	24.3±1.7
DZ 0.25	72.1±5.8	12.2 ±0.7+	24.1±1.6
DZ 0.5	94.7±8.7**	21.3 ±1.0**	21.0±1.1
DZ 1.0	85.0±8.7	26.2 ±0.9***	14.1±0.6**
DZ 2.0	55.5±5.5	35.6 ±1.1***	12.5±0.5***
	H = 23.6, fd= 4, p≤.001	H = 41.7, fd= 4, p≤0.001	H = 32.6, fd=4, p≤0.001