

Supplementary Materials for

Aloe-emodin prevents nerve injury and neuroinflammation caused by ischemic stroke via PI3K/AKT/mTOR and NF-κB pathway

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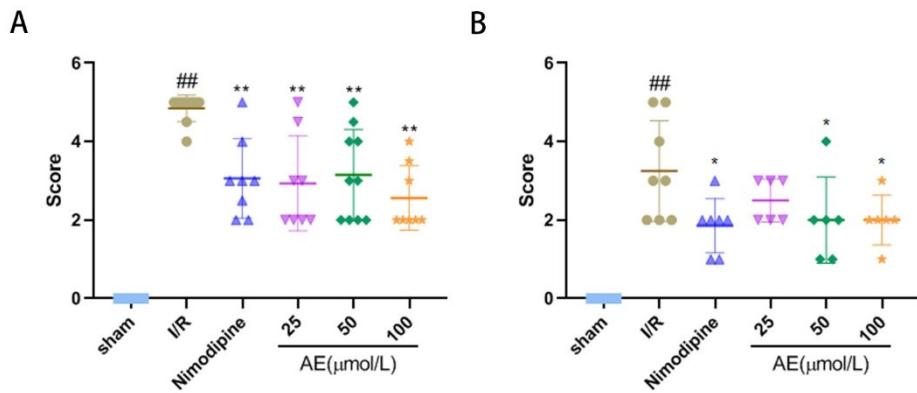
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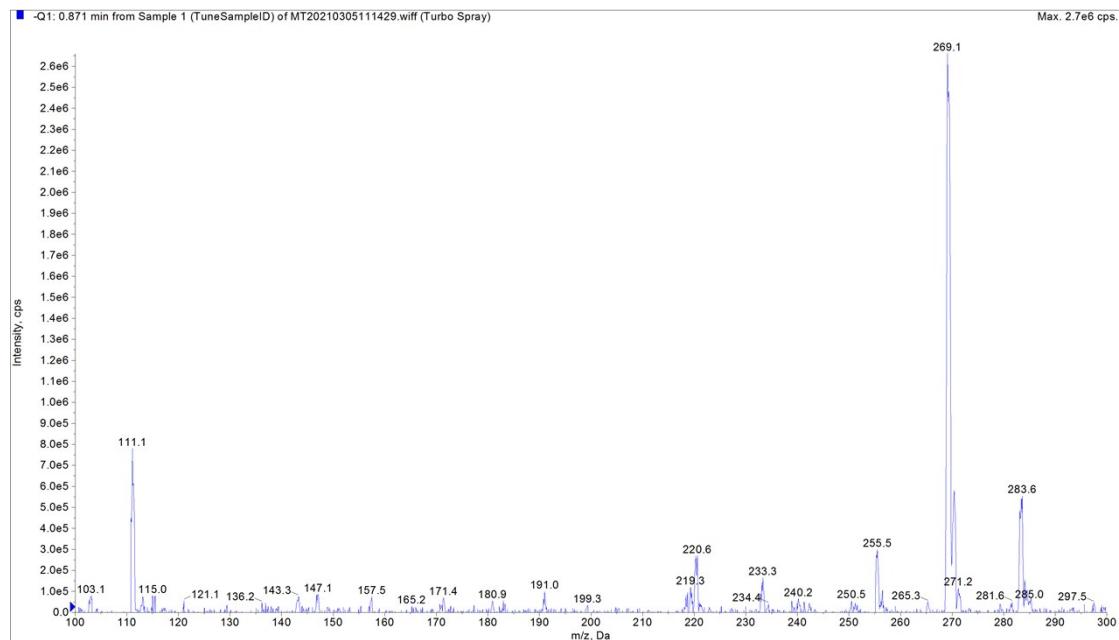
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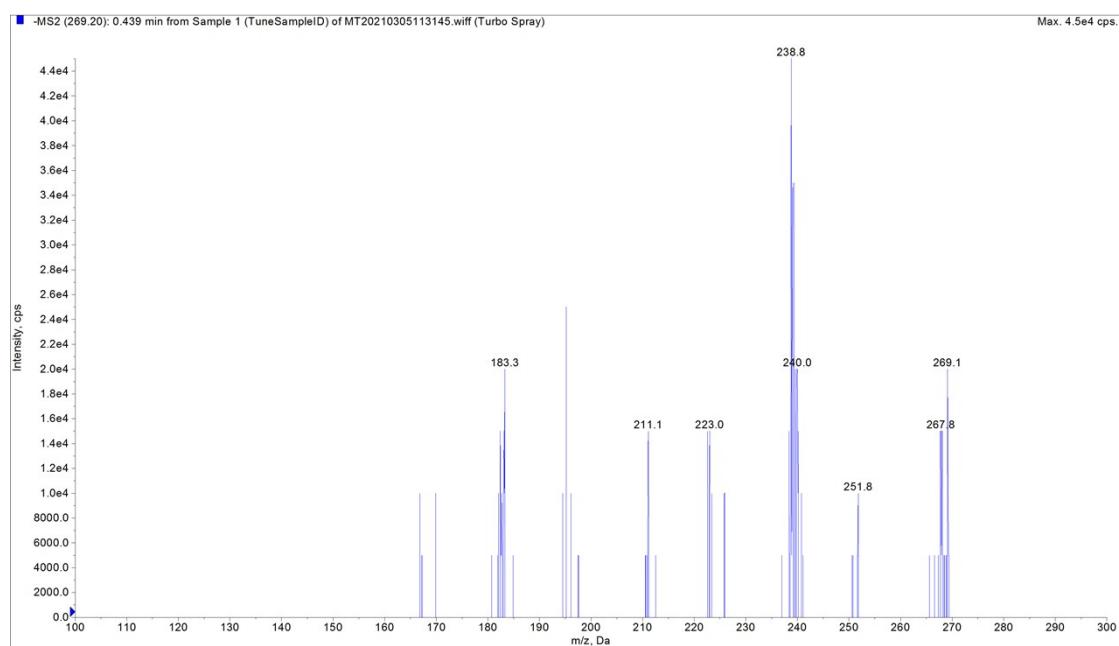
Figures. 1 to 6 and Table 1



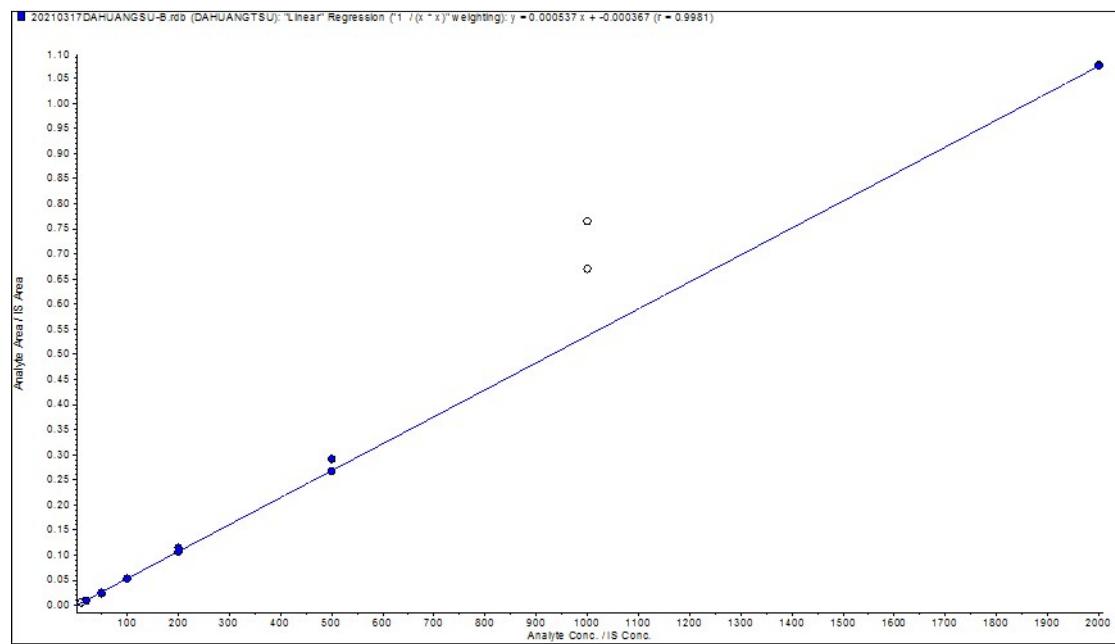
**Fig1 Neuroprotective effect of AE.** **(A)** Evaluation of neurological impairment after different conditions. **(B)** Grasping experiment score after different conditions.  $##P < 0.01$  compared with sham group;  $*P < 0.05$ ,  $**P < 0.01$  compared with the I/R group.



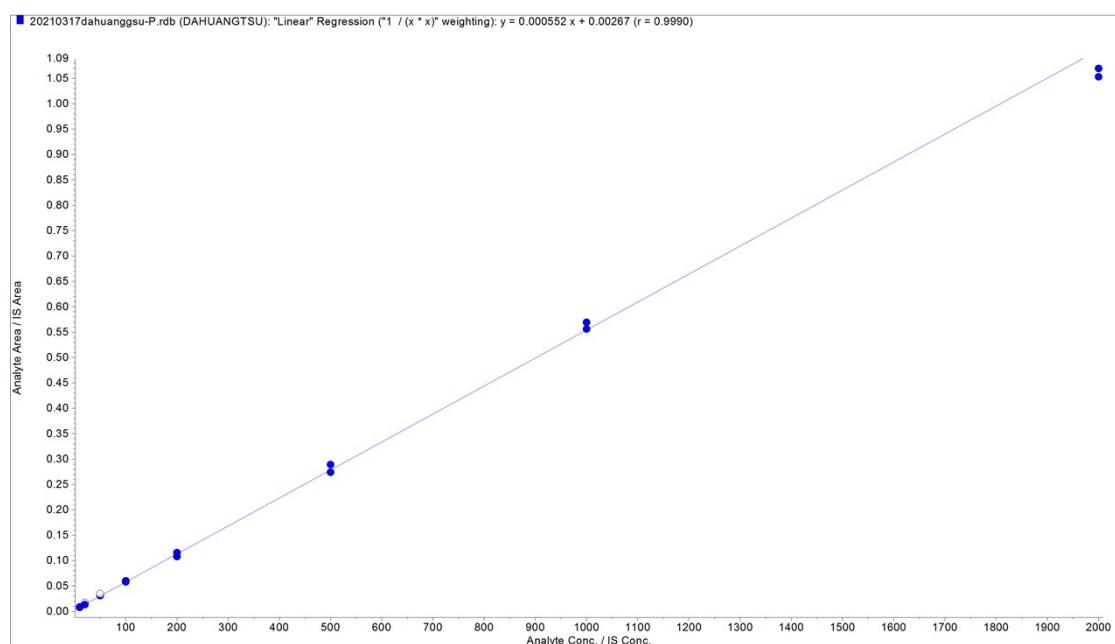
**Fig 2 The first-order mass spectrogram of AE.**



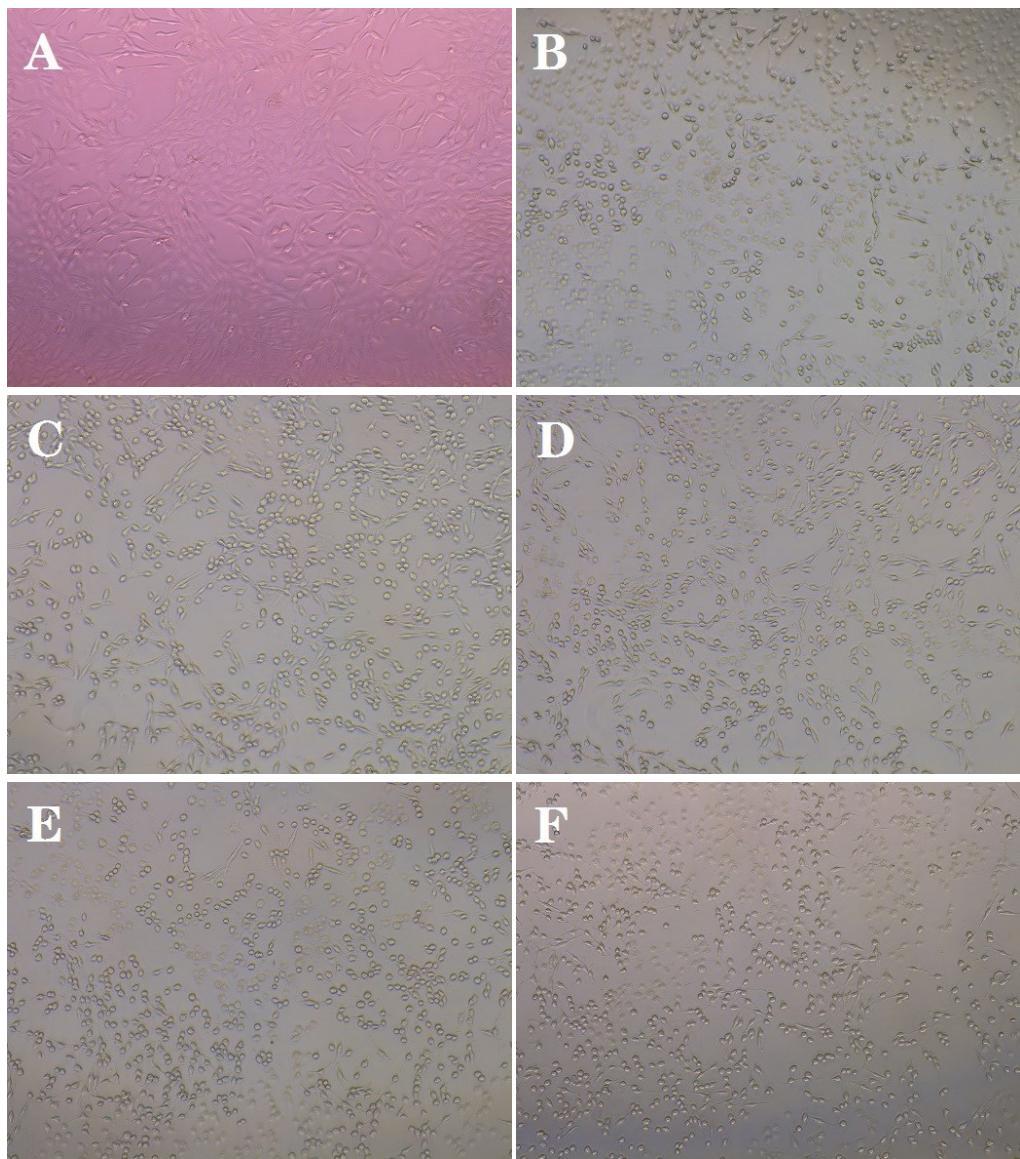
**Fig 3 The secondary mass spectrogram of AE.**



**Fig 4 The standard curve of AE content in brain tissue.**



**Fig 5 The standard curve of AE content in plasma tissue.**



**Fig 6. Effect of AE on OGD/R injury morphology of SH-SY5Y cells (10 × 10 times).** (A) Control group. (B) model group. (C) Edaravone group. (D) AE group (10 $\mu$ mol/L). (E) AE group (8 $\mu$ mol/L). (F) AE group (6 $\mu$ mol/L).

**Table 1 Survival rate of SHSY5Y cells under different conditions.**

Na <sub>2</sub> S <sub>2</sub> O <sub>4</sub> (mmol/L)	Cell survival rate (%)		
	1h	2h	4h
0	100.00±3.10	100.00±6.59	100.00±5.03
1	87.13±1.97##	63.75±3.57##	64.67±4.27##
5	81.56±2.82##	62.75±3.14##	62.88±3.40##
10	74.73±3.91##	53.72±2.39##	39.12±3.17##
15	74.45±1.88##	41.37±5.22##	31.23±2.54##
20	71.94±2.71##	37.35±6.32##	21.97±2.16##
30	49.18±5.90##	22.02±3.21##	17.51±1.33##
40	38.10±2.46##	16.36±2.40##	14.47±2.95##

vs control group, ## $P < 0.01$