Analytes	Linear regression data		
	Regression curve	Range (µg/mL)	r
Columbamine	Y=22110X+9054	0.77-49.66	0.9999
Jatrorrhizine	Y=35080+48814	3.87-248.03	0.9999
Tetrandrine	Y=76293X+23441	0.62-39.98	0.9999
Palmatine	Y=28297X+10058	5.52-353.08	0.9997
Berberine	Y=43963X+40197	4.61-295.53	0.9999

Table S1. The linearity of five alkaloid compounds



Figure S1. Cell viability of various concentrations of six plant extracts (ZP, YS, DX, CZ, XG and BJ) for 24 h in PC12 cells. Each experiment was done in triplicate, data shown as means  $\pm$  SD



Figure S2. Comparison of the cytotoxicity at various concentrations of  $A\beta_{1-40}$  in PC12 cells. Data shown as means  $\pm$  SD (n=3), RPMI media was used as control (Ctrl.)



Figure S3. Standard curve of different Trolox concentrations



Figure S4. Representative dynamic fluorescence curve of standards of ORAC assay. All standards were prepared in MeOH and same volume of MeOH was added into APPH- (negative control). Data shown as means (n=3)



Figure S5. Relative Trolox value of different extracts at different concentrations. A: 50 µg/mL; B. 100 µg/mL; C. 150 µg/mL



Figure S6. Cytotoxicity of various concentrations of six plant extracts (ZP, YS, DX, CZ, XG and BJ) in RAW264.7 cells. DMEM media was used as control (Ctrl.)



Figure S8. NO production of various concentrations of ZP extracts in RAW264.7 cells. In LPS-group, DMEM were added instead of 1.0  $\mu$ g/mL LPS; LPS+ group, containing 1.0  $\mu$ g/mL Data shown as means  $\pm$  SD (n=3) (\* p< 0.05, \*\* p< 0.01)



Figure S9. Logistic curve of TNF- $\alpha$  at different standard concentrations

**Copyright:** ©2021 Huang Y. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.