1   **Supplementary material**

2   **Table S1.** Identified peptides from fraction FVPH-III-2 with a ALC value≥98%.

3   **Table S2.** Primer sequences used for qRT-PCR analysis.

4   **Fig. S1.** Total ion chromatogram of the FVPH-III-2 fraction.

5   **Fig. S2.** Effects of $A\beta_{25-35}$ with different concentrations on cell viability in HT22 cells.

6   The data were expressed as mean ± SD (n=3). Different letters indicate significant

7   statistical differences ($P < 0.05$).

8

9 **Table S1** Identified peptides from fraction FVPH-III-2 with a ALC value≥98%.

Peptide	Mass	Log (peak area)	ALC（%）
SDLKPADF	891.43	7.37	98
WNDHYY	896.35	6.34	99
YVYAETY	907.40	6.18	98
WFHPLF	845.42	6.09	98
TPFHPGYL	930.46	5.55	98
YADVGPGGY	897.39	5.50	99
DLLNHPADLK	1134.60	5.24	98
WDDHYY	897.33	5.09	98
LSVGPPTY	832.43	5.08	98
DFNKPGE	805.36	4.87	98
ATGHYPGY	864.38	4.82	98
WLLDQGK	858.46	4.75	98
YAWVLDK	893.46	4.65	98

10

11 **Table S2.** Primer sequences used for qRT-PCR analysis.

	forward 5'-3'	reverse 3'-5'
NGF	CGACTCCAAACACTGGAACTCA	GCCTGCTTCTCATCTGTTGTCA
HO-1	ATGTGGCCCTGGAGGAGGAGA	CGCTGCATGGCTGGTGTGTAG
NQO-1	GGATTGGACCGAGCTGGAA	AATTGCAGTGAAGATGAAGGCAAC
GADPH	TGGAGAAACCTGCCAAGTATGA	TGGAAGAATGGGAGTTGCTGT

12
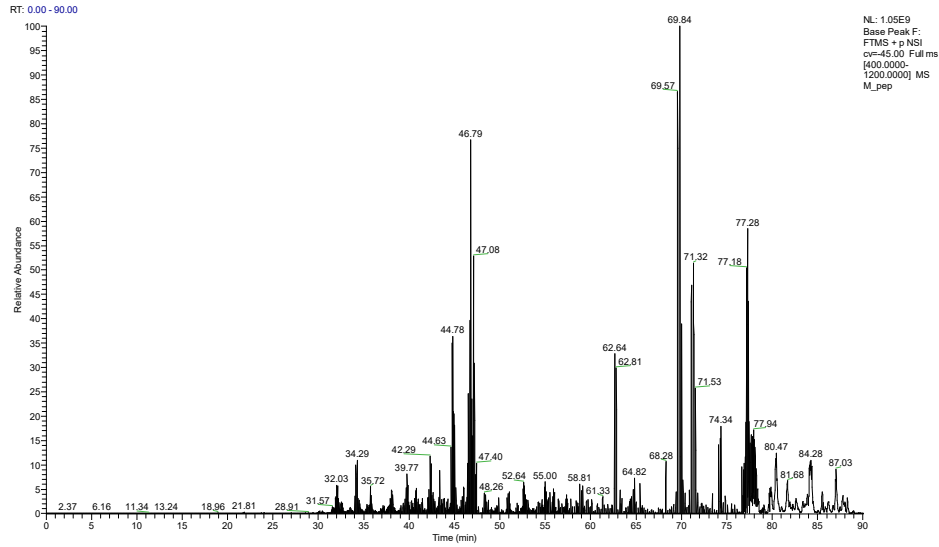
13

14 **Fig. S1.** Total ion chromatogram of the FVPH-III-2 fraction.
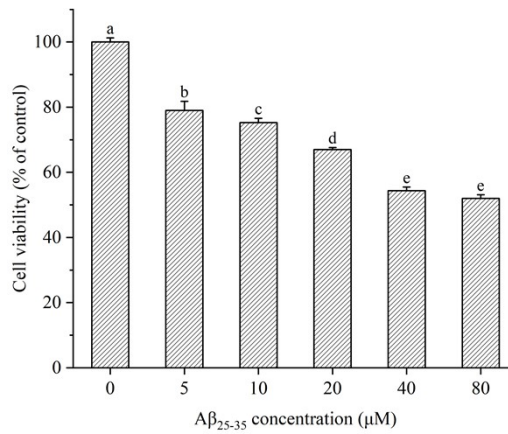
15

16 **Fig. S2.** Effects of $A\beta_{25-35}$ with different concentrations on cell viability in HT22 cells.

17 The data were expressed as mean $\pm$ SD (n=3). Different letters indicate significant

18 statistical differences ($P < 0.05$).