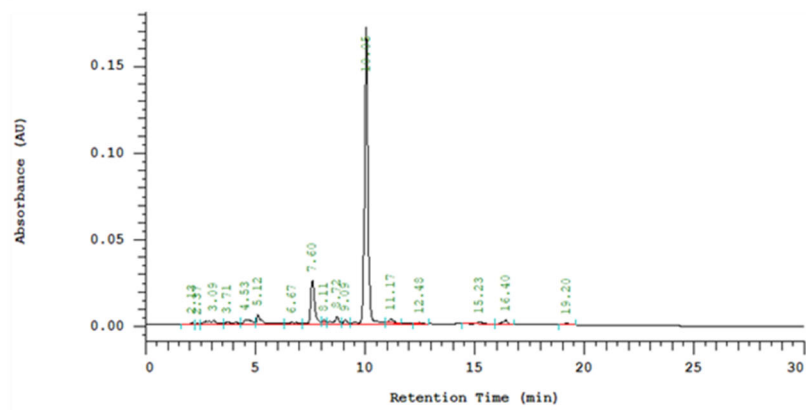


## Supplementary Materials

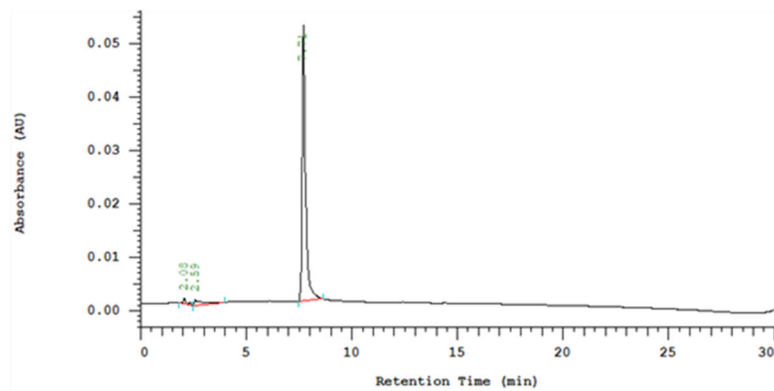
**Table S1.** Primer sequences for rat antioxidant and mitochondrial mRNA

Gene	Forward	Reverse	Accession Number
<i>Actb</i>	5'- GCAGATGTGGATCAGCAAGC	5'- GGTGTAAAACGCAGCTCAGTAA	NM_031144.3
<i>Sod1</i>	5'- TCTAAGAAACATGGCGGTCC	5'- CAGTTAGCAGGCCAGCAGAT	NM_017050.1
<i>Sod2</i>	5'-CAATCTGAACGTCACCGAGGA	5'-AGCAGGCGGCAATCTGTAA	NM_017051.2
<i>Cat</i>	5'-TGTGGTTTTTCACCGACGAGAT	5'-GCTTGAAGGTGTGTGAGCCAT	NM_012520.2
<i>Gpx</i>	5'- CTCTCCGCGGTGGCACAGT	5'- CCACCACCGGGTCGGACATAC	NM_030826.4
<i>Nrf2</i>	5'- TCAATGACTCTGACTCCGGCA	5'- TCCTACAGTTCTGAGCGGCAA	NM_001399173.1
<i>Nd1</i>	5'- CAAAGGCCCCAACAACGAAG	5'- TGAGGTGGTTAGAGGGCGTA	X07479.1
<i>Atp6</i>	5'- CGAACCTGAGCCCTAATA	5'- GTAGCTCCTCCGATTAGA	MW209726.1
<i>Pgc1a</i>	5'-GTGCAGCCAAGACTCTGTATGG	5'-GTCCAGGTCATTACATCAAGTTC	NM_031347.1
<i>Nrf1</i>	5'- GCTGTCCCACCTCGTGTCGTAT	5'- GTTTGAGTCTAACCCATCTATCCG	NM_001100708.1
<i>Tfam</i>	5'- CGCCTAAAGAAGAAAGCACA	5'- GCCCAACTTCAGCCATTT	NM_031326.2

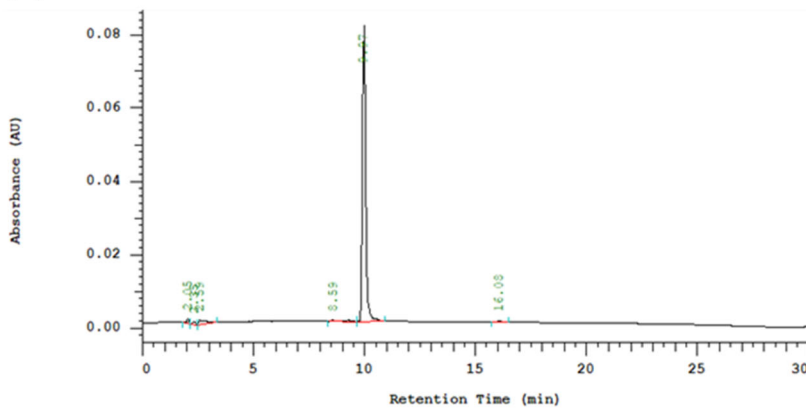
(A)



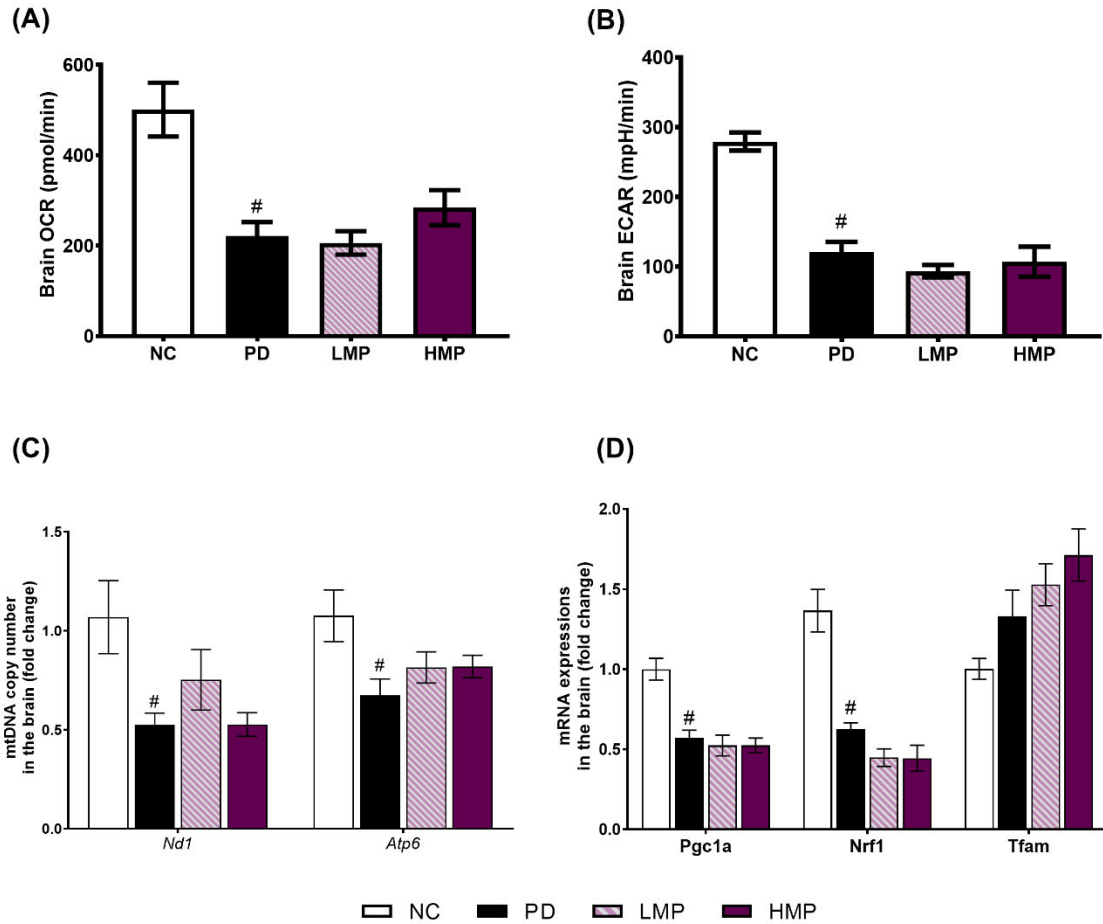
(B)



(C)



**Figure S1.** High-performance liquid chromatography (HPLC) elution profiles of (A) mangosteen pericarp extract (0.1 mg of mangosteen pericarp extract/mL), (B)  $\gamma$ -mangostin standard (25  $\mu$ g/mL), and (C)  $\alpha$ -mangostin standard (25  $\mu$ g/mL).



**Figure S2.** Comparison of mitochondrial function and mitochondria-related mRNA expressions in the brain between groups after 8-weeks supplementations. **(A)** The basal oxygen consumption rate (OCR) as used to evaluate mitochondrial respiration. **(B)** The basal extracellular acidification flux (ECAR) was used to evaluate the glycolysis rate. **(C)** mtDNA copy numbers (*Nd1* and *Atp6*). **(D)** Mitochondria biogenesis-related mRNA expression genes: PPARG coactivator 1 alpha (*Pgc1a*), nuclear respiratory factor 1 (*Nrf1*), mitochondrial transcription factor A (*Tfam*). Results are presented as the average  $\pm$  SEM with  $n = 5$  rats/group as analyzed by one-way ANOVA with Tukey's post hoc test. <sup>#</sup>  $p < 0.05$  in a comparison of the Parkinson's disease (PD) group with the normal control (NC) group. No significant differences found between PD group and low-dose mangosteen pericarp (LMP) or high-dose mangosteen pericarp (HMP) group.