Ginsenoside-Rg1 synergized with voluntary running exercise protects against glial activation and dysregulation of neuronal plasticity in depressed rats

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Supplementary Figure Legends

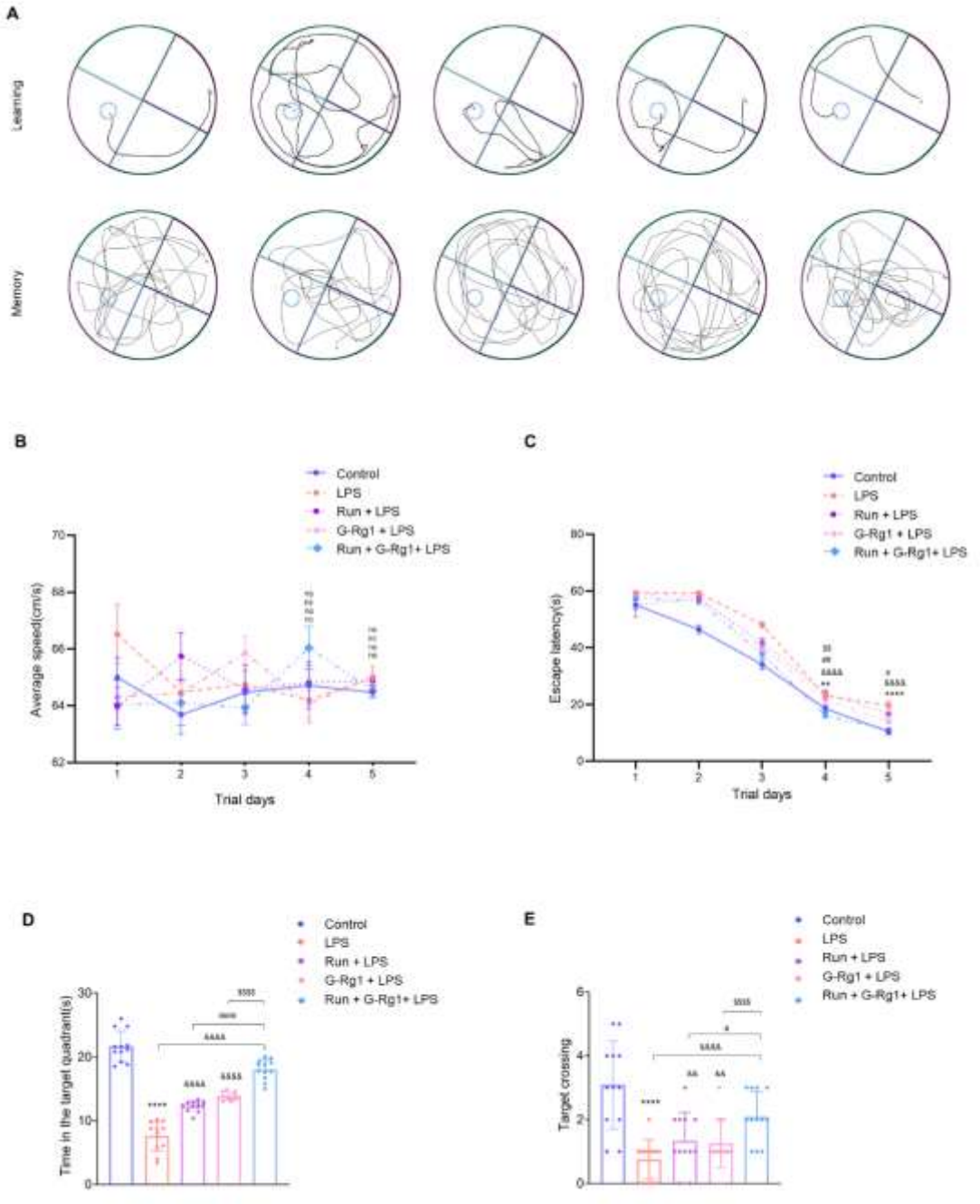

Fig. S1. Ginsenoside-Rg1 synergized voluntary wheel running exercise protected learning and memory loss in the LPS-introduce rats. (A) Rat movement trajectory

diagram in Morris water maze (MWM). (B) There was no significant difference in average swimming speed among all groups. (C-E) Pretreatment with Ginsenoside-Rg1 or/and pretreatment with voluntary running exercise alleviated the escape latency, the time within the target quadrant, and the number of times crossed the platform. All values are presented as means ± SEM (N = 12). *P < 0.05, **P < 0.01, ***P < 0.001, ****P < 0.0001, LPS vs control group; $^{\&}$P < 0.05, $^{\&\&}$P < 0.01, $^{\&\&\&}$P < 0.001, $^{\&\&\&\&}$P < 0.0001, LPS vs voluntary running exercise + LPS group, LPS vs Ginsenoside-Rg1 + LPS group, LPS group vs voluntary running exercise + Ginsenoside-Rg1 + LPS; $^{\#}$P < 0.05, $^{\#\#}$P < 0.01, $^{\#\#\#}$P < 0.001, $^{\#\#\#\#}$P < 0.0001, voluntary running exercise + LPS vs voluntary running exercise + Ginsenoside-Rg1 + LPS group; $^{\$}$P < 0.05, $^{\$\$}$P < 0.01, $^{\$\$\$}$P < 0.001, $^{\$\$\$\$}$P < 0.0001, Ginsenoside-Rg1 + LPS vs voluntary running exercise + Ginsenoside-Rg1 + LPS group.

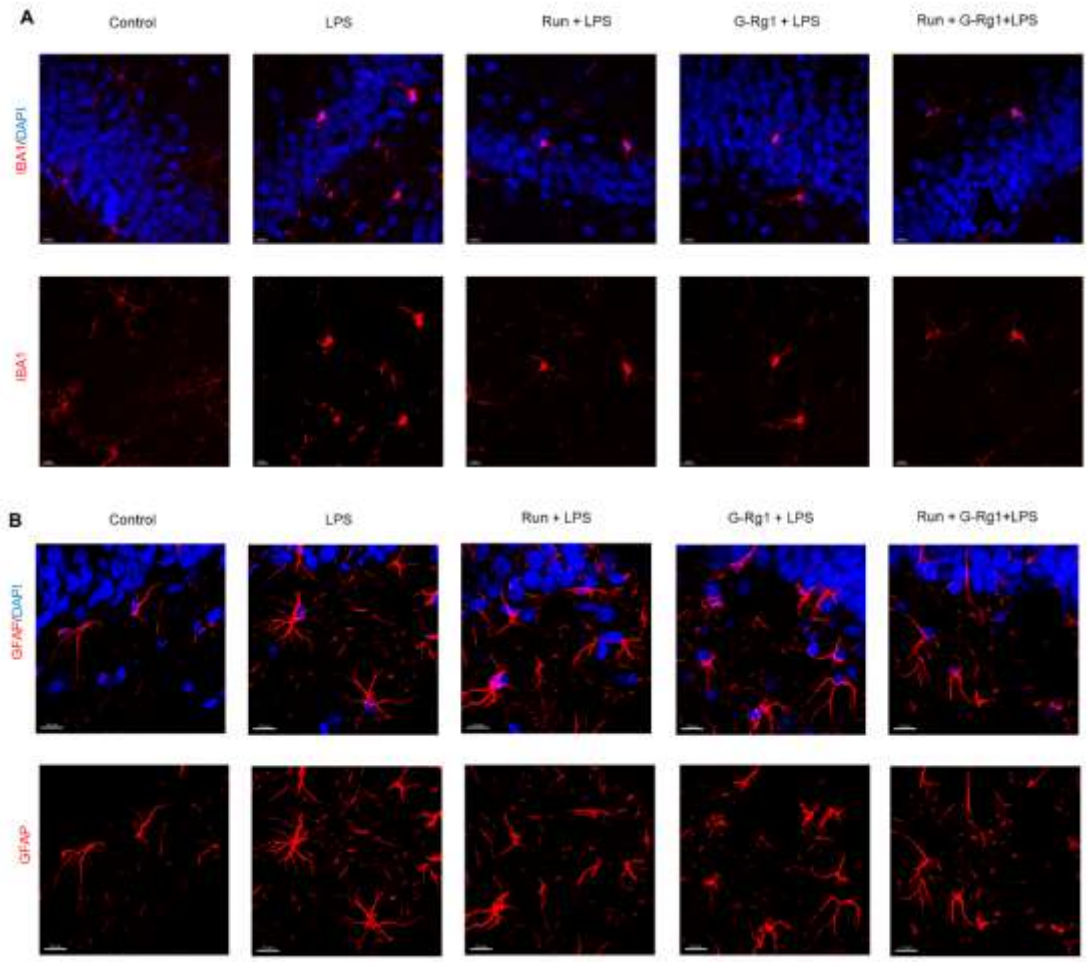

Fig. S2. The morphological changes of microglia and astrocytes within the hippocampus. (A) Ginsenoside-Rg1 synergized voluntary wheel running exercise reduced the morphological changes of microglia within the hippocampus. (B) Ginsenoside-Rg1 synergized voluntary wheel running exercise reduced the morphological changes of astrocytes within the hippocampus. Nuclei (blue) are stained with DAPI. The scale bar is 10μm.

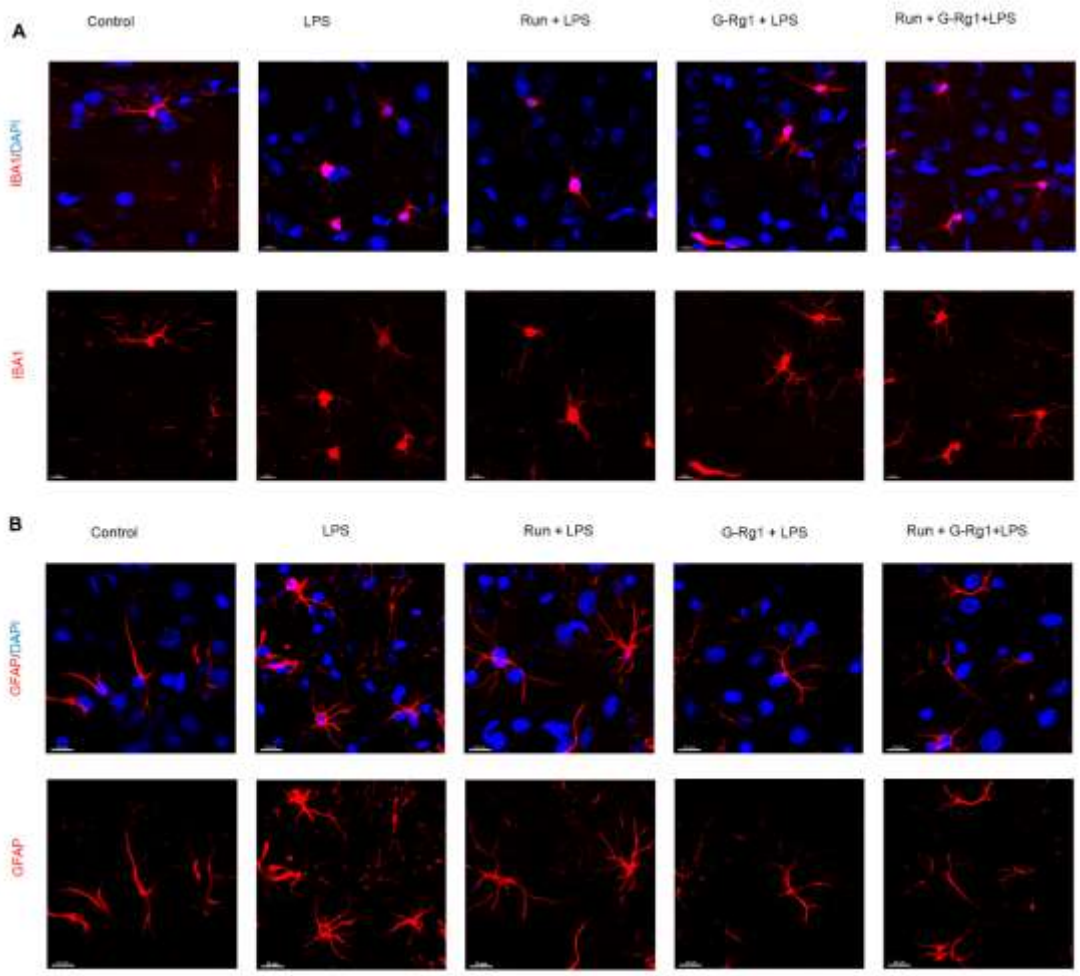

Fig. S3. The morphological changes of microglia and astrocytes within vmPFC. (A) Ginsenoside-Rg1 synergized voluntary wheel running exercise reduced the morphological changes of microglia within the vmPFC. (B) Ginsenoside-Rg1 synergized voluntary wheel running exercise reduced the morphological changes of astrocytes within the vmPFC. Nuclei (blue) are stained with DAPI. The scale bar is 10μm.