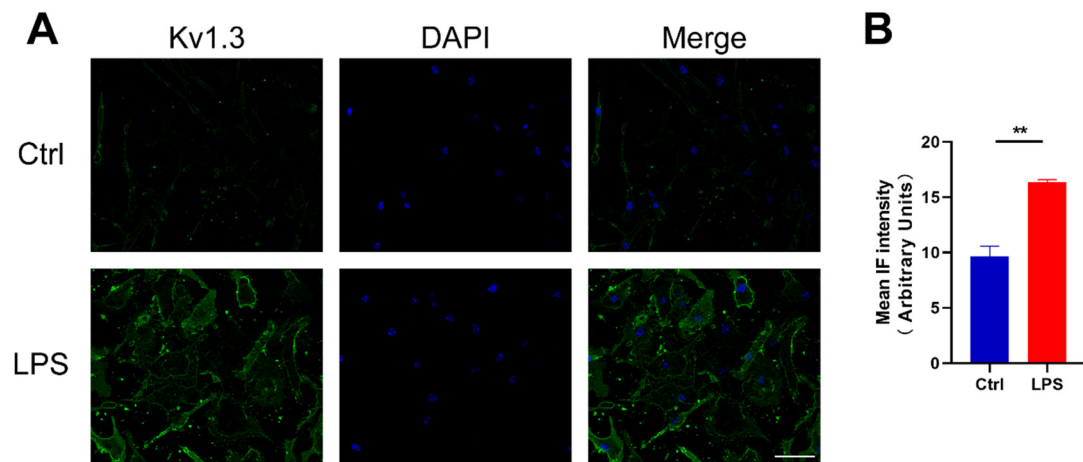
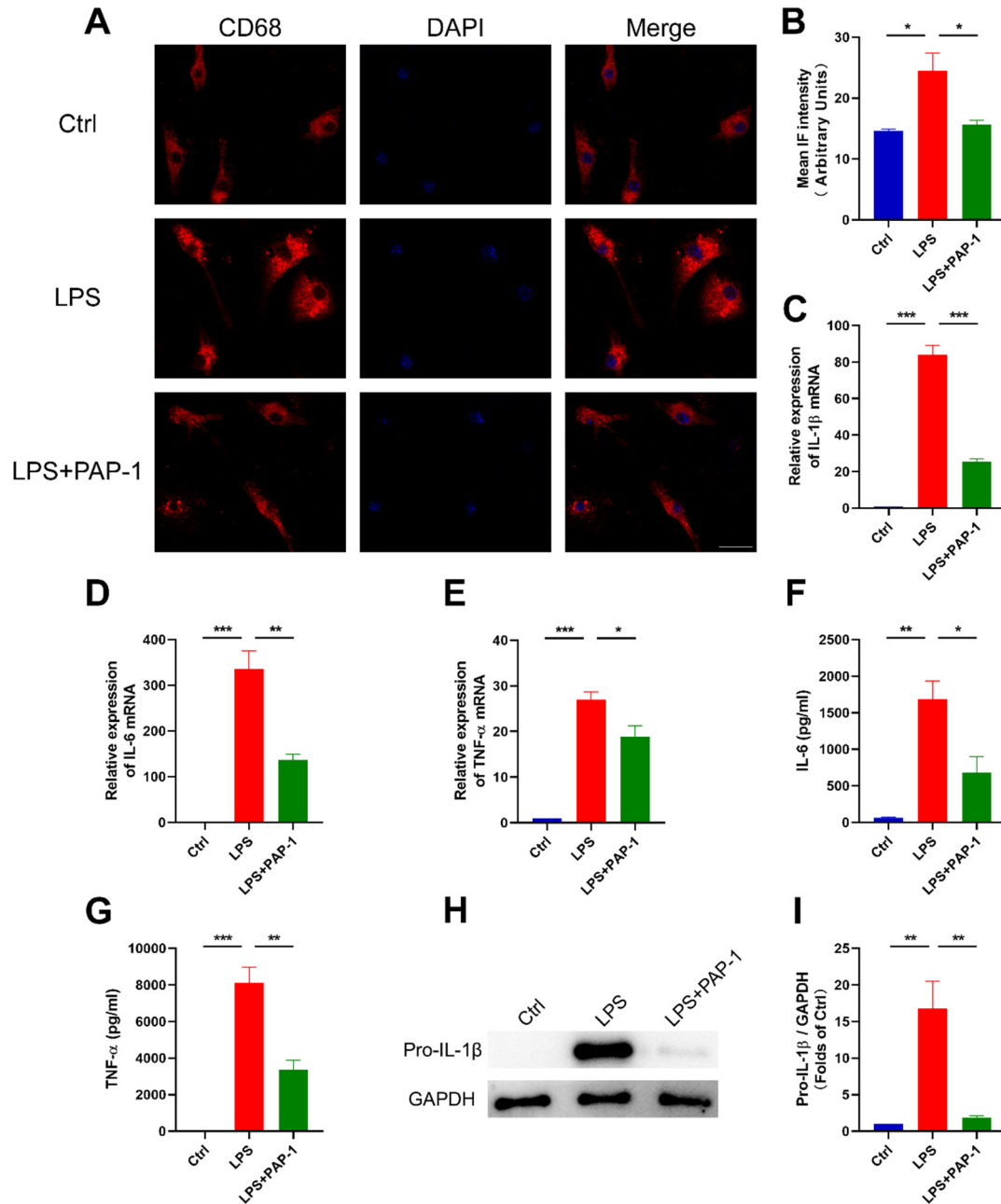


Supplementary Materials:



**Figure S1.** Kv1.3 expression was increased in primary microglia stimulated by LPS. (**A**, **B**) Immunofluorescence of LPS-induced Kv1.3 protein expression in primary microglia ( $n = 3$ ), statistics by unpaired  $t$ -test. Scale bar: 20  $\mu\text{m}$ . Data were depicted as the mean  $\pm$  SEM.  $**P < 0.01$ .



**Figure S2.** Blockade of Kv1.3 reduced microglial activation and proinflammatory cytokine production in cultured primary microglia. (**A**, **B**) Representative confocal images showing CD68 expression after treatment in primary microglia and statistical analysis ( $n = 3$ ), statistics by one-way ANOVA with Tukey's multiple comparisons test,  $F(2, 6) = 9.685$ ,  $P = 0.0132$ . Scale bar: 20  $\mu$ m. (**C**-**E**) qPCR analysis of primary microglia after PAP-1 treatment showing reduced mRNA expression of proinflammatory factors ( $n = 3$ ), statistics by one-way ANOVA with Tukey's multiple comparisons test; IL-1 $\beta$ ,  $F(2, 6) = 187.5$ ,  $P < 0.0001$ ; IL-6,  $F(2, 6) = 50.95$ ,  $P = 0.0002$ ; TNF- $\alpha$ ,  $F(2, 6) = 61.66$ ,  $P < 0.0001$ . (**F**, **G**) IL-6 and TNF- $\alpha$  in the supernatants of primary microglia were measured using ELISA ( $n = 3$ ), statistics by one-way ANOVA with Tukey's multiple comparisons test; IL-6,  $F(2, 6) = 18.35$ ,  $P = 0.0028$ ; TNF- $\alpha$ ,  $F(2, 6) = 48.73$ ,  $P = 0.0002$ . (**H**, **I**) Representative Western blot images and statistical analysis of IL-1 $\beta$  in the primary microglia ( $n = 3$ ), statistics by one-way ANOVA with Tukey's multiple comparisons test,  $F(2, 6) = 16.72$ ,  $P = 0.0035$ . Data were depicted as the mean  $\pm$  SEM. \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ .