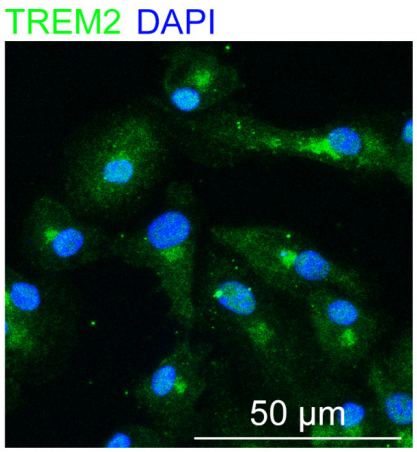

图 S1. 原代培养的小胶质细胞纯度检测

Fig. S1. Primary microglia purity assay. Primary microglia were fixed and labeled by anti-TREM2 antibody, followed with counterstaining of DAPI. The purity of microglia reaches 98%.

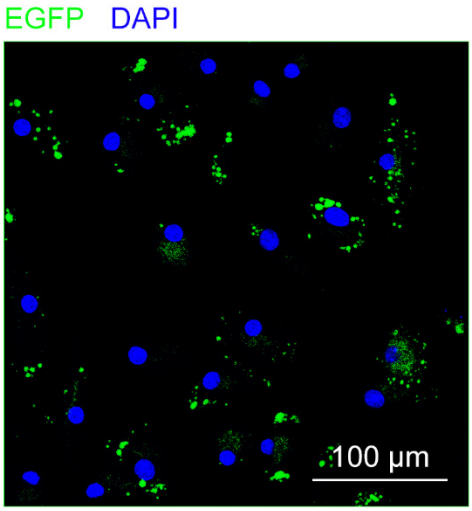

图 S2. mCherry-EGFP-LC3 慢病毒感染小胶质细胞效率验证

Fig. S2. Validation of the efficiency of mCherry-EGFP-LC3 lentivirus infection to microglia. After transfected with lentivirus expressing mCherry-EGFP-LC3, microglia were fixed and counterstained with DAPI. The effective transfection rate is approximately 50%.

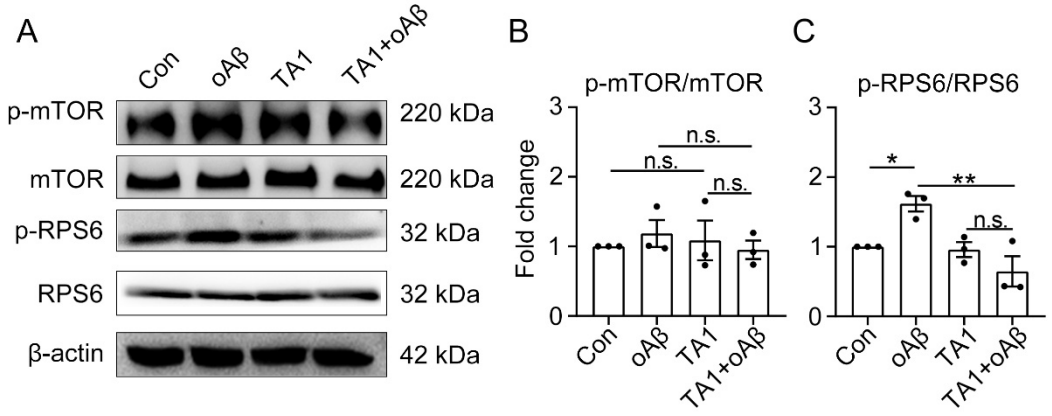

图 S3. TA1 对体外 AD 小胶质细胞模型中 mTOR 通路的影响

Fig. S3. The impact of TFEB activator 1 (TA1) on mTOR pathway in *in vitro* model of microglia in Alzheimer's disease (AD). Primary microglia were co-treated with 1 μmol/L oAβ and 1 μmol/L TA1 for 12 h. mTOR and RPS6 and their phosphorylation level were detected by Western blotting and quantified by ImageJ. Mean ± SEM, $n = 3$, two-way ANOVA. $^{*}P < 0.05$ and $^{**}P < 0.01$. n.s. indicated no significant difference.