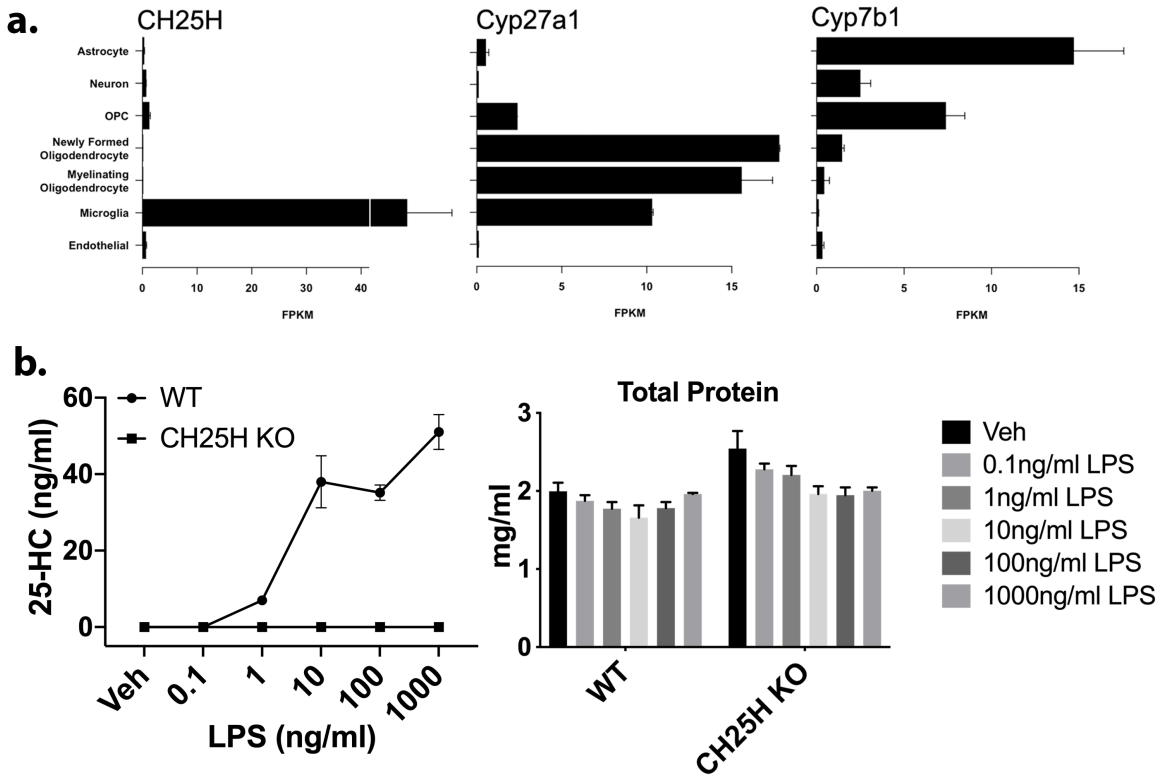
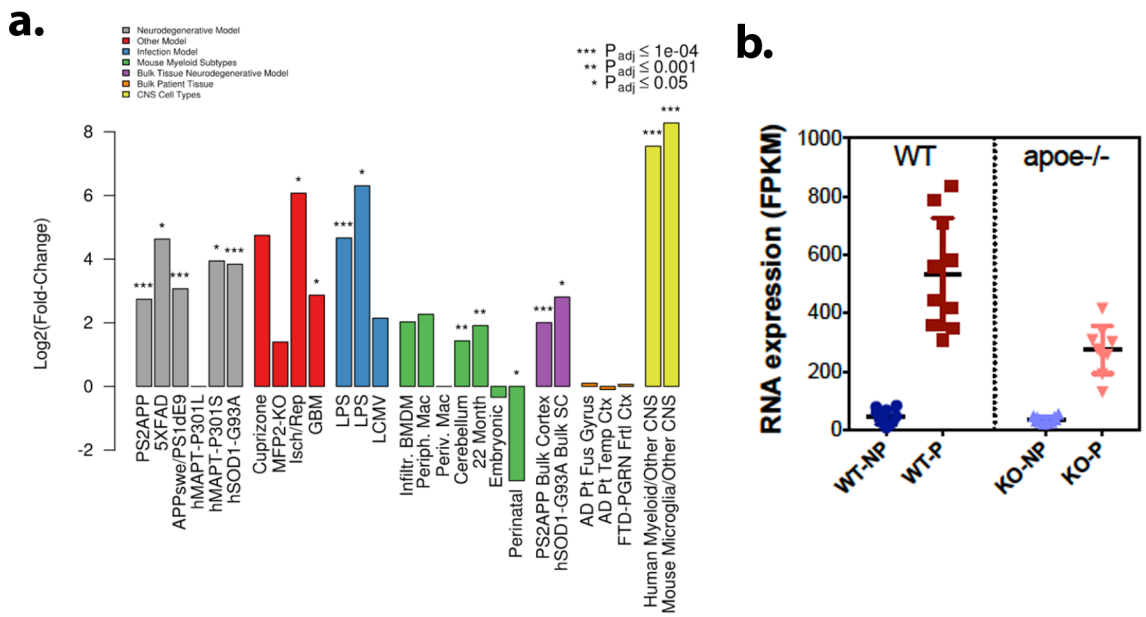
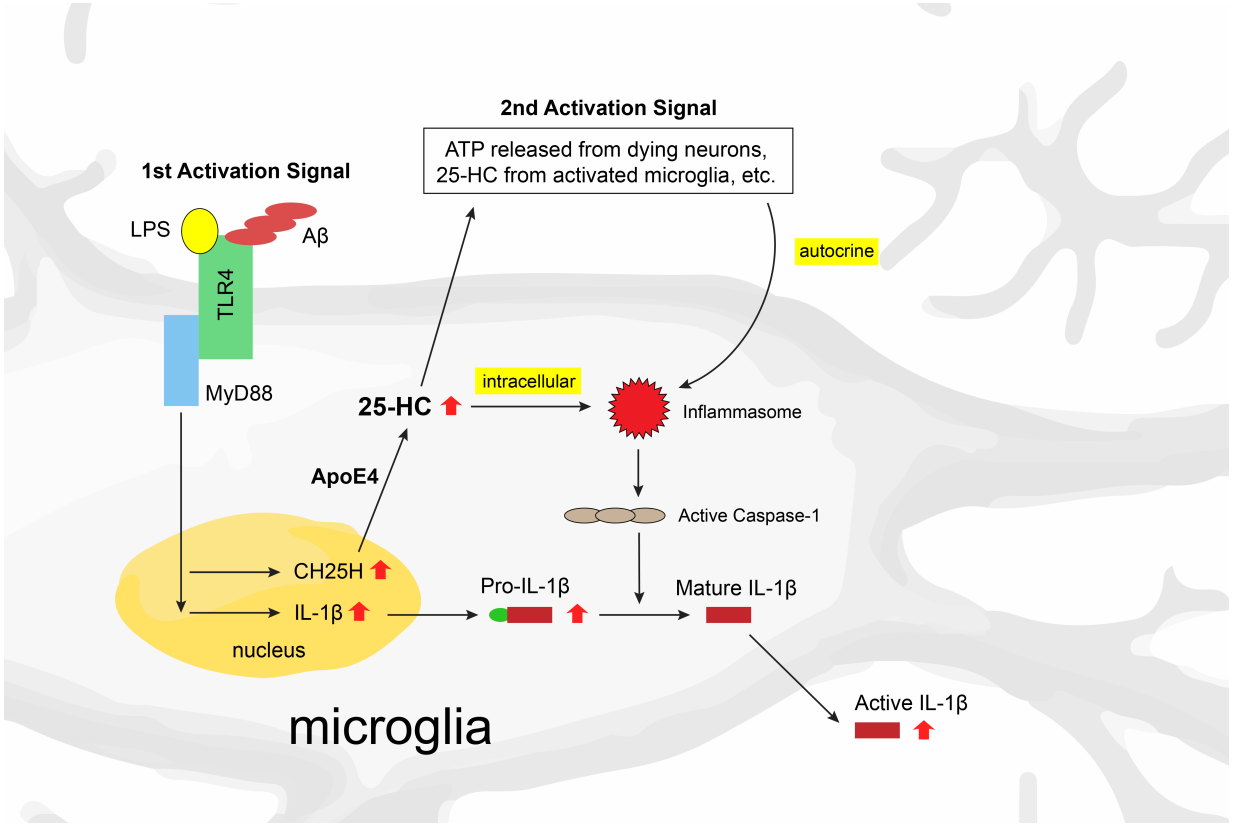


Supplementary Figure 1. a). Expression of CH25H, Cyp27a1 and Cyp7b1 in different cell types in brain based on the Stanford transcriptome database generated by Barres and colleagues (http://www.brainrnaseq.org). b). GC-MS analysis of 25-HC levels in the conditioned medium (left) and total protein levels of cell lysate of primary mouse microglia from wild-type and CH25H-/- mice treated with LPS (0, 0.1, 1, 10, 100, 1000ng/ml).



Supplementary Figure 2a. Differential expression of CH25H or its ortholog in a comparison within one of the datasets. Fold-Changes are relative to non-transgenic, untreated, normal, adult, cortical or parenchymal microglia as appropriate, or, for the last two comparisons, relative to non-myeloid CNS cells (Friedman, et al Cell Report, 2018) http://research-pub.gene.com/BrainMyeloidLandscape. **2b.** Relative CH25H gene expression in non-phagocytic (NP) and phagocytic (P) wild-type (WT) or apoe-/- (KO) microglia by RNA seq analysis data generated by Krasemann et al, (Immunity, 47:566, 2017).



Supplementary Figure 3. A schematic diagram for the mechanism associated with 25-HC in amplifying IL-1β production via inflammasome activation.

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