

Supplementary material

Brain lipid profiles and oligodendrocyte gene expression show discordant responses to high-fat diet in Alzheimer's disease mice.

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Fig. S1

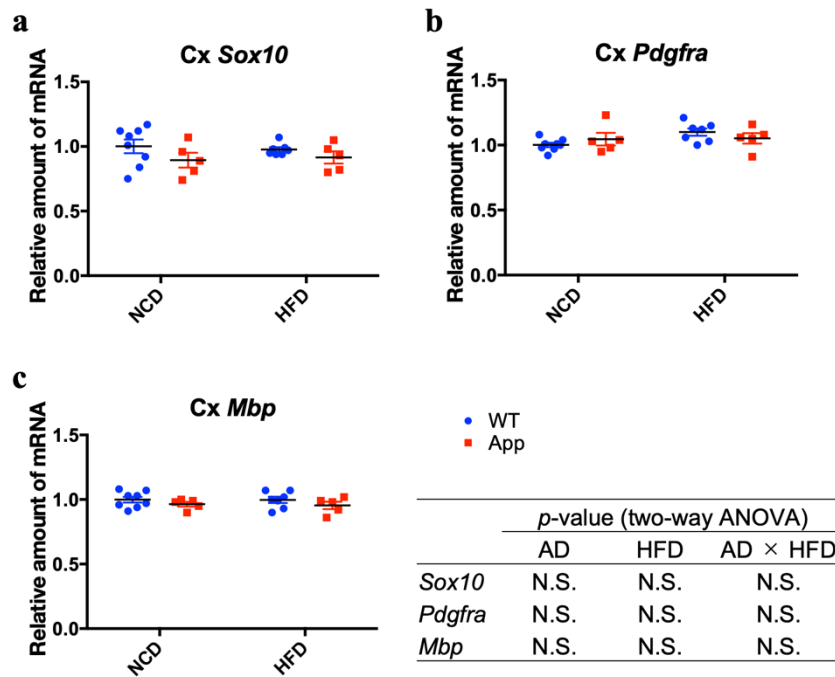


Fig. S1. Gene expressions of oligodendrocyte lineage markers in the cerebral cortex were not altered in App mice and not affected by HFD intake.

Relative mRNA levels of markers for oligodendrocyte lineage cells in the cerebral cortex (WT-NCD group : n = 8, WT-HFD group : n = 7, App-NCD and App-HFD groups : n = 5 each). β -Actin mRNA was used as the internal control. The means of the WT-NCD group were set to 1.0. Bars indicate means and the vertical lines indicate S.E. The effect and interaction with $p < 0.05$ by two-way ANOVA were judged as significant. N.S.: not significant.

Fig. S2

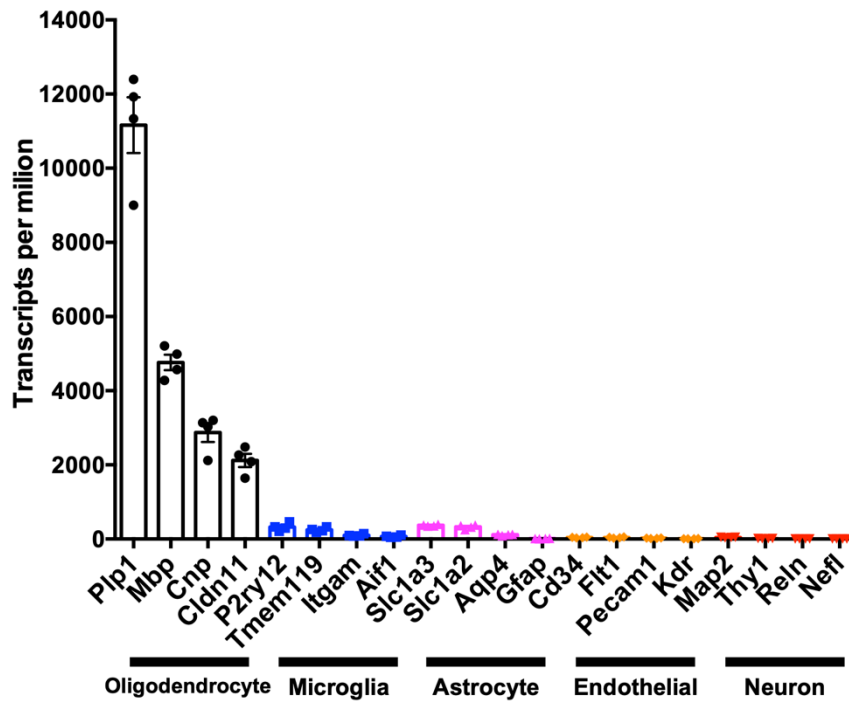


Fig. S2. Oligodendrocyte-lineage cells isolated from brain by MACS were highly purified.

RNA sequencing analysis of oligodendrocytes isolated from brains (WT-NCD and WT-HFD groups : n = 4 each, App-NCD group : n = 3, App-HFD group : n = 4). Transcripts per million (TPM) of markers for oligodendrocyte, microglia, astrocyte, endothelial cell, and neuron in oligodendrocytes isolated from the WT-NCD group. Bars indicate means and the vertical lines indicate S.E.

Fig. S3

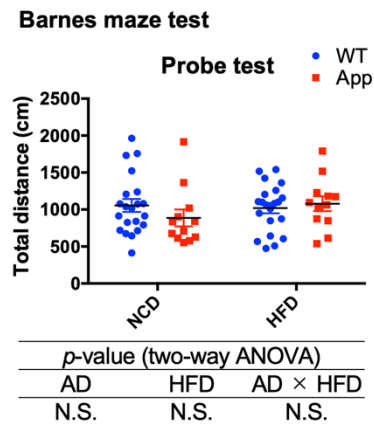


Fig. S3. Locomotor activity in mice was not affected by HFD intake.

Total distance during the probe test on day 6 was measured in Barnes maze test (WT-NCD and WT-HFD groups each: $n = 21$, App-NCD and App-HFD groups : $n = 12$). Bars indicate means and the vertical lines indicate S.E. The effect and interaction with $p < 0.05$ by two-way ANOVA were judged as significant. N.S.: not significant.