

Expanded View Figures

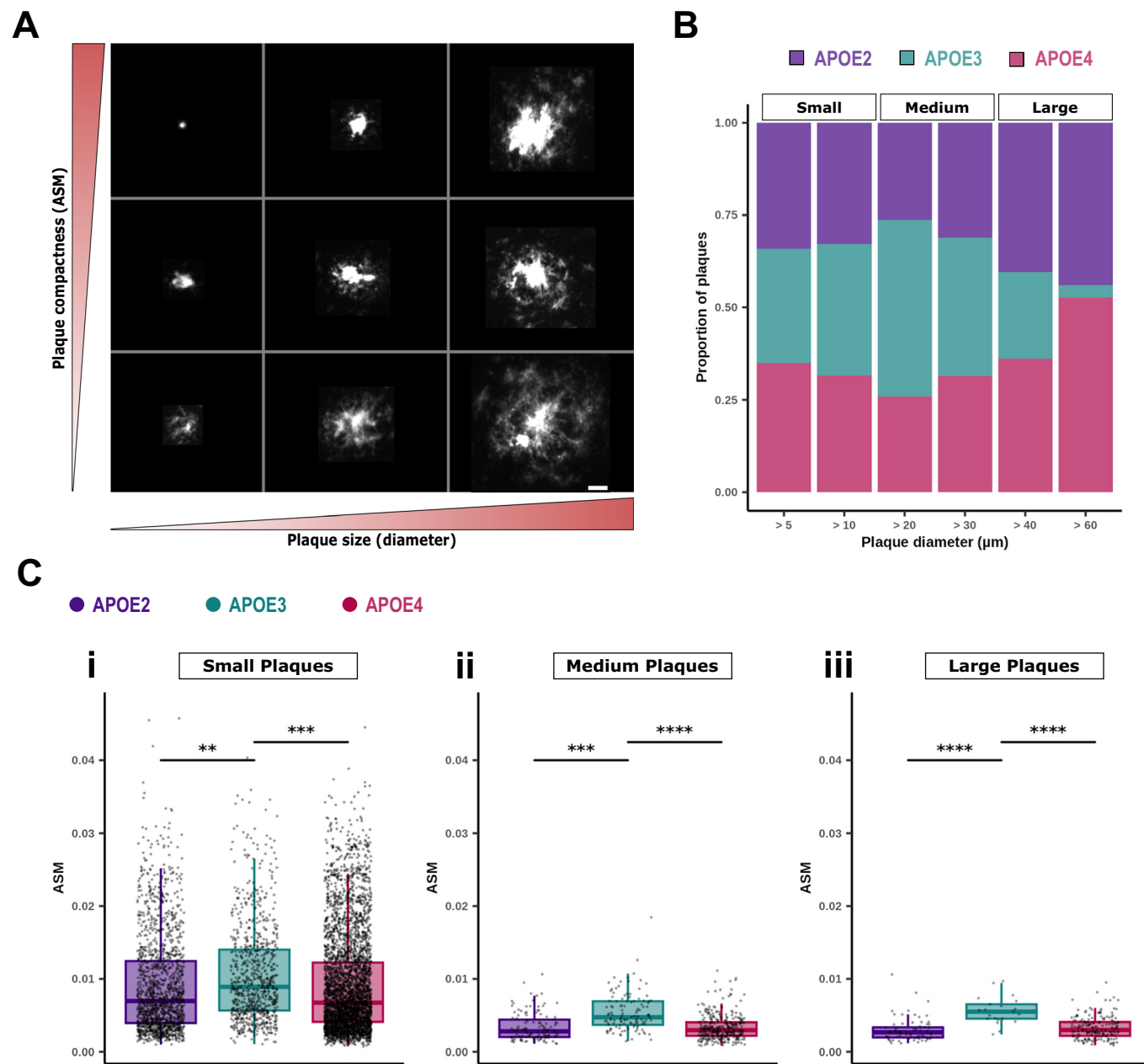


Figure EV1. Astrocyte-derived APOE modulates the size and compactness of fibrillar A β plaques.

(A) Composite tile showing individual X-34+ fibrillar plaques, with increasing plaque size (measured in diameter) along the x-axis and increasing compactness (measured in Angular Second Moment (ASM) value) along the y-axis. Higher ASM values correlate with higher compactness. Scale bar: 10 μ m. (B) Stacked bar plot showing proportion of X-34+ fibrillar plaques from APOE2, APOE3 and APOE4 groups in different size categories (diameter in μ m) along the x-axis. Lower limit for plaque size set to 5 μ m in diameter. Size categories used: small (5–20 μ m diameter), medium (20–40 μ m diameter) and large (above 40 μ m diameter). (C) Box plot showing ASM values as an estimate of plaque compactness in APOE2, APOE3 and APOE4 groups. Size categories used: (i) small (5–20 μ m diameter), (ii) medium (20–40 μ m diameter) and (iii) large (above 40 μ m diameter). Data points show value for individual plaques ($n = 6$ –10 mice per group, 3 FOV per mouse). In C(i), APOE2 vs APOE3 ** $p = 0.0093$; APOE2 vs APOE4 $p = 0.547$; APOE3 vs APOE4 *** $p = 0.0003$. In C(ii), APOE2 vs APOE3 *** $p = 0.0001$; APOE2 vs APOE4 $p = 0.9818$; APOE3 vs APOE4 **** $p < 0.0001$. In C(iii), APOE2 vs APOE3 **** $p < 0.0001$; APOE2 vs APOE4 $p = 0.471$; APOE3 vs APOE4 **** $p < 0.0001$. Statistical tests: Data presented as median and interquartile range $\pm$ values within 1.5 times the interquartile range (C). Minima and maxima for box plots in C(i) APOE2 (0.001, 0.0457), APOE3 (0.0011, 0.0501), APOE4 (0.0007, 0.0565); in C(ii) APOE2 (0.0011, 0.0106), APOE3 (0.0015, 0.0184), APOE4 (0.0008, 0.0111); in C(iii) APOE2 (0.0012, 0.0106), APOE3 (0.0024, 0.0097), APOE4 (0.0009, 0.0095). Linear mixed effects model with Tukey's HSD test in (C) done at mouse sample level.

