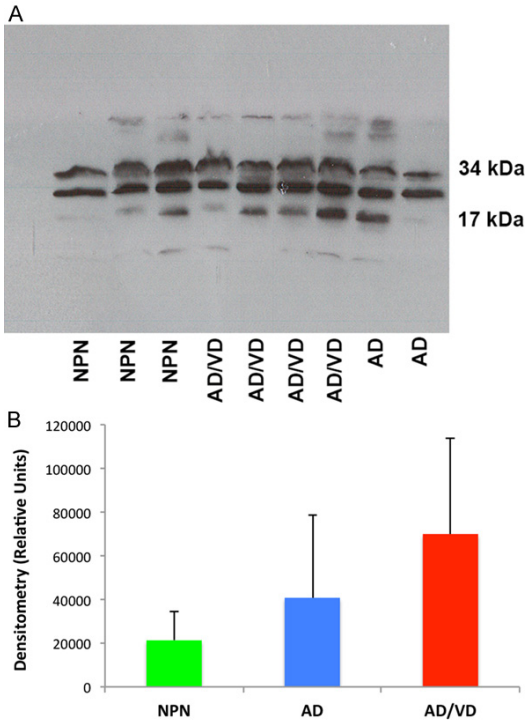
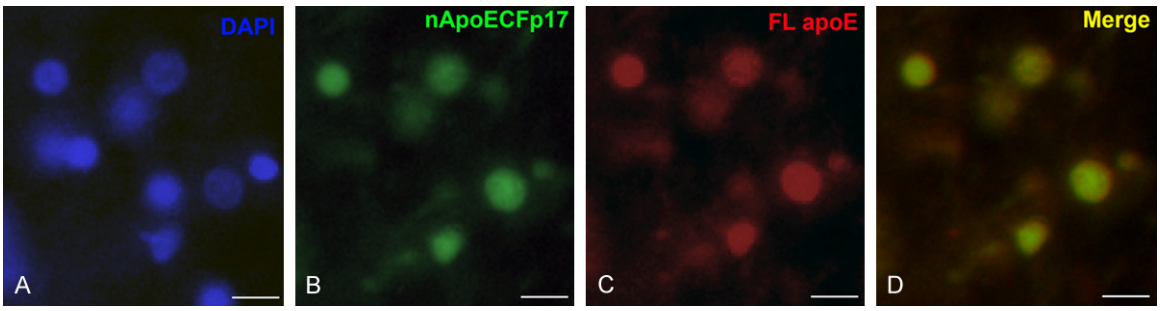
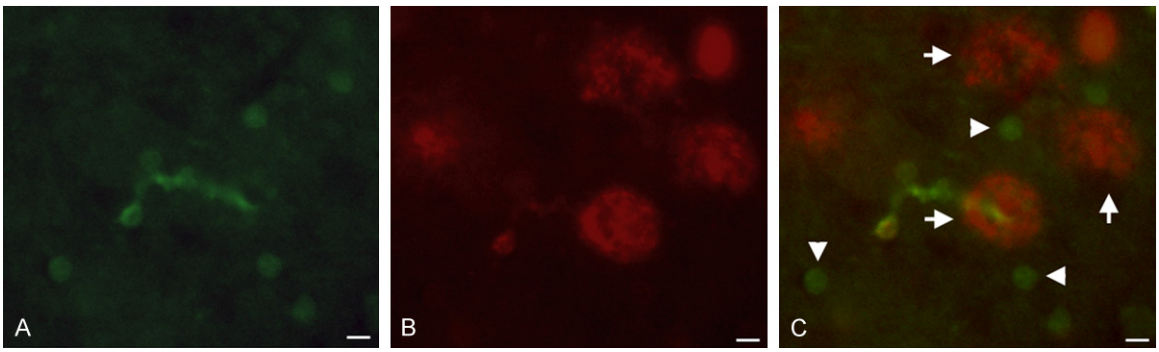


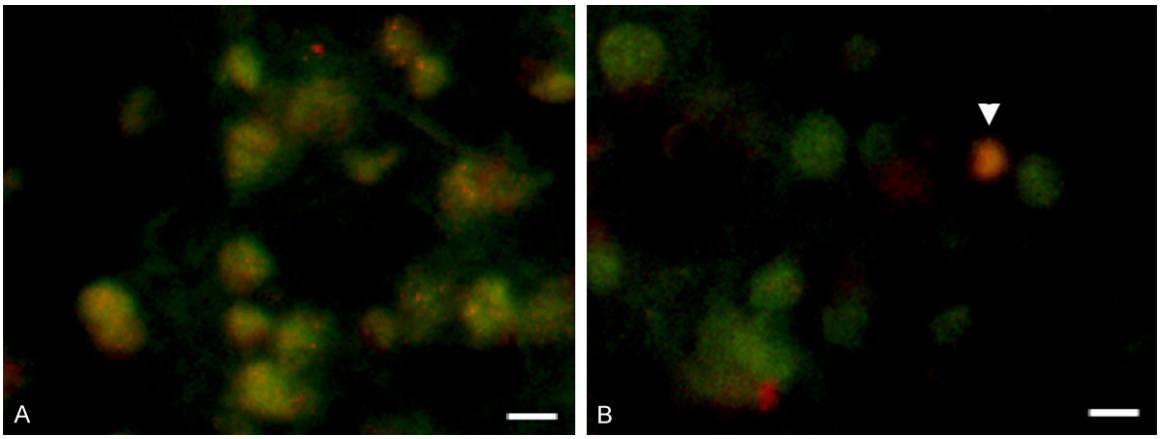
Supplementary Figure 1. Identification of the p17 amino-terminal fragment of apoE4 utilizing an antibody that recognizes full-length apoE4. (A) Western blot analysis was performed utilizing protein extracts from frozen, frontal cortex brain tissue from neuropathological controls, (NPN, *APOE* genotype 3/4), AD/VD subjects (*APOE* genotype 4/4), or AD subjects (*APOE* genotype 3/4). Soluble human brain lysates were separated on 15% SDSPAGE gels, transferred to nitrocellulose, and then probed with a full-length antibody to apoE whose epitope is at the extreme N-terminus (1:500). The p17 band along with full-length apoE (34 kDa) was detected under these conditions. (B) Representative densitometry analysis of the p17 band shown in (A) representing NPN subjects, AD, and AD/VD subjects, ± S.D.



Supplementary Figure 2. Nuclear localization of an amino-terminal fragment of apoE4 is confirmed using a full-length antibody to apoE. (A-D) Representative immunofluorescence images in AD utilizing the nuclear stain, DAPI, (A), nApoECFp17 (B), full-length apoE4 antibody to amino-terminus (C), with the overlap image of (B and C) shown in (D).



Supplementary Figure 3. Presence of nApoECFp17 immunoreactivity within plaque rich regions of the human AD brain. (A-C) Representative immunofluorescence images in frontal cortex AD tissue sections utilizing the nApoECFp17 antibody, 1:100 (green, A), Ab monoclonal antibody, clone 6E10, 1:400 (red, B), and the merged image shown in (C). Arrowheads depict nApoECFp17-positive cells near extracellular plaques (arrows). Scale bars represent 10 μm. To visualize Ab labeling, tissue sections were pretreated for 5 min in 95% formic acid.



Supplementary Figure 4. The amino-terminal fragment apoE 1-151 co-localizes to a greater extent within microglia cells than for oligodendrocytes. Representative double-label immunofluorescence overlap image used to quantify the percent localization of either the microglial marker, Iba1 (red) (A) or the oligodendrocyte marker, Olig-1 (red) (B) together with nApoECFp17 (green). Only cells that clearly appeared yellowish orange were quantified as being positive for both antibodies. Many more cells showed co-localization of the two antibodies for Iba1 and nApoECFp17 (A) versus Olig-1 and nApoECFp17 where one cell in this representative field appears to be double-labeled with both antibodies (arrowhead, B). See methods for details on how quantification was performed. Scale bars represent 10 μm.