**Supplemental Figure 1. CD36P and CP insert into macrophage plasma membrane.** FAM-labeled peptides were incubated with freshly isolated peritoneal macrophages at a final concentration of 5μM. At timed points from 0 to 60 min (**A**), cells were harvested and pelleted by centrifugation, resuspended in 200μl buffer, and examined by flow cytometry to detect FAM fluorescence**.** (B) Representative confocal microscopy images of single cells treated as in panel A for 60min. Bar scale: 2.5μM. **(C)** Flow cytometry of cells treated as in (A) comparing fluorescence after incubation with CD36nTMD peptide for one hour and 18 hours. (D) Adherent macrophages on glass coverslips were incubated with FAM-labeled peptides (final 5μM) for one hour or 18 hours in 12-well plates, fixed in 4% PFA, and then analyzed by fluorescence microscopy. Bar scale: 20μM. (E) Macrophages were incubated with PE-labeled (red) antibody to the cell surface marker F4/80 (top right) and the FAM-labeled (green) CD36nTMD peptide (top left) and analyzed by confocal microscopy as in panel B. Yellow fluorescence indicating co-localization is shown in lower right panel. Cells were also stained with DAPI (blue) to label nuclei. Ns = non-significant ($p > 0.05$); *: $p < 0.05$; **: $p < 0.01$; *** $p < 0.001$; **** $p < 0.0001$ (n=3).

**Supplemental Figure 2**. CD36nTMD peptide does not influence CD36-independent macrophage membrane functions. AcLDL uptake or phagocytosis of fluorescence-labeled beads by macrophages. (A) CD36P and CP peptides were incubated with peritoneal macrophages at a final concentration of 5μM. After 1 hour incubation, medium with peptides was removed and SFM containing DiI-AcLDL or DiI-oxLDL (final 10ug/ml) was added. Cells were harvested after 30min, and examined by flow cytometry to detect DiI fluorescence. The bar graphs shows quantification results (n=3). (B) Macrophages treated with peptides as in panel A were incubated in complete medium with 2%FBS and Green Fluorescent Polymer Microspheres (Thermo Scientific) at final concentration 10ul/ml. Cells were harvested after 24 hours and examined by

flow cytometry to detect internalized fluorescence. The bar graphs show quantification of mean fluorescence intensity (n=3). In all panels, ns= non-significant, ($p > 0.05$); *: $p < 0.05$; **: $p < 0.01$; *** indicates $p < 0.001$, **** $p < 0.0001$.

**Figure SS-1**

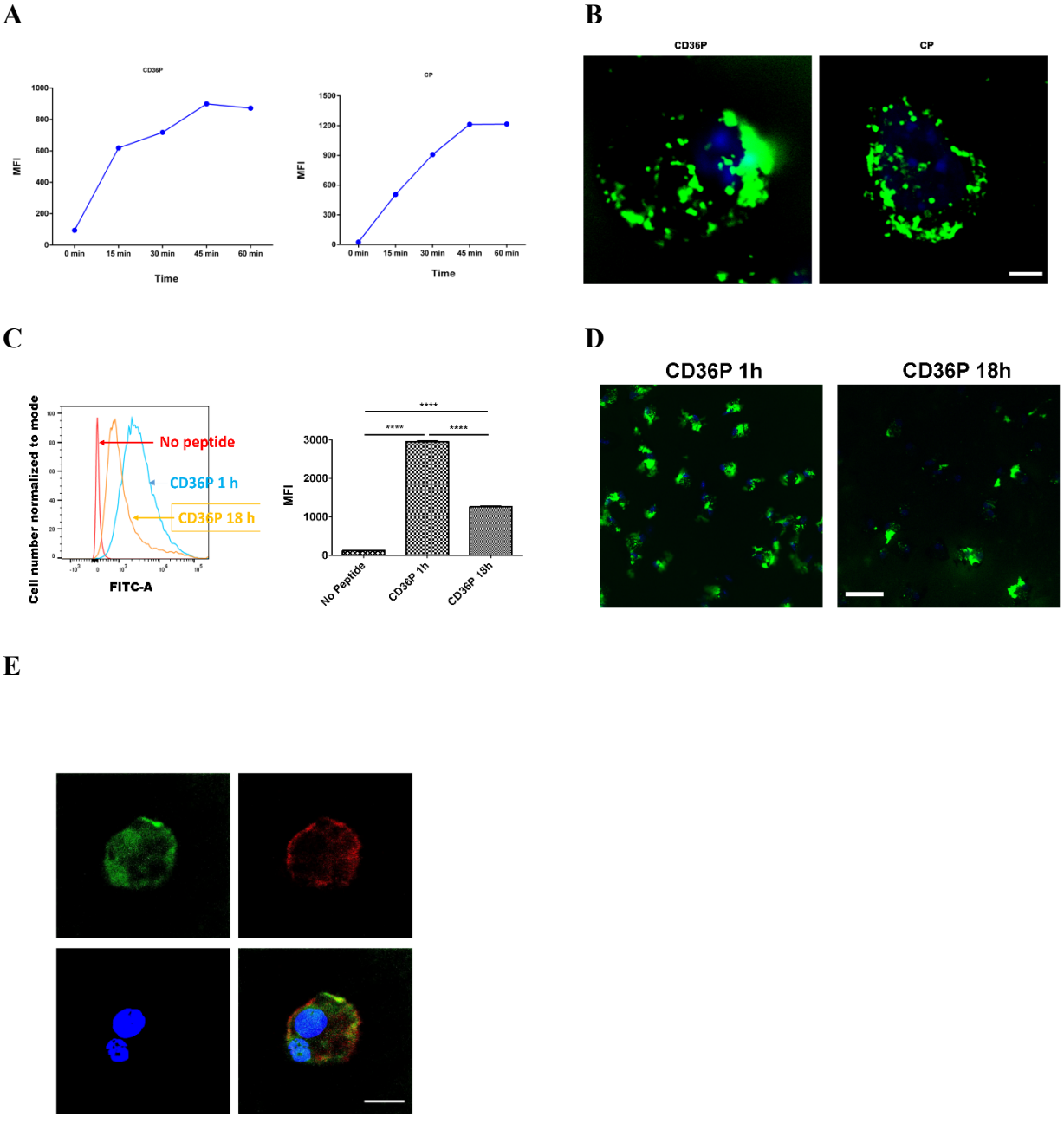
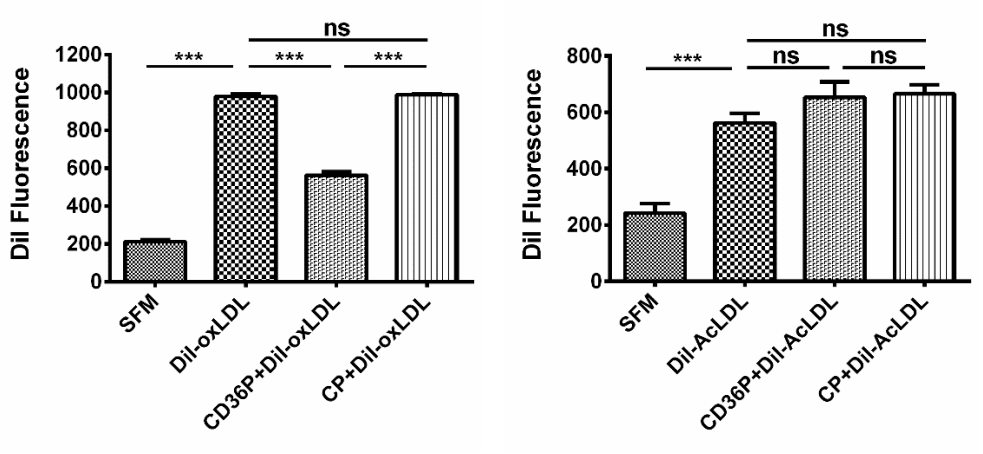


**Figure SS-2**

**A**




B