

Description of Additional Supplementary Files

Supplementary Movie 1 and Supplementary Movie 2: Representative living cell videos of Dil-OxLDL (red) in WT BMDMs transfected with pEGFP-GPNMB plasmid (green) to show the contact, adhesion (S1), uptake and movement (S2). The shortest distance of Dil-OxLDL to GPNMB⁺ circles calculated by Imaris.

Supplementary Movie 3: Representative living cell videos of WT BMDMs transfected with pEGFP-GPNMB plasmid (green) and mEos2-NEEP21 plasmid (red) and then treated with CF647 stained-OxLDL (purple) for 36h.

Supplementary Movie 4: Representative living cell videos of WT BMDMs transfected with pEGFP-GPNMB plasmid (green) and ptdTomato-N1-FLCN plasmid (red) and then treated with CF647 stained-OxLDL (purple) for 36h. The shortest distance of CF647-OxLDL to GPNMB⁺ circles or FLCN⁺ circles calculated by Imaris.

Supplementary Movie 5, Representative living cell videos of THP-1 macrophages transfected with pEGFP-GPNMB plasmid (green) and mCherry-KDEL plasmid (red).

Supplementary Movie 6: Representative living cell videos of WT BMDMs transfected with pEGFP-GPNMB plasmid (green) and mcherry-Mann II plasmid (red) and then treated with CF647 stained-OxLDL (purple) for 36h.

Supplementary Movie 7: Representative living cell videos of WT BMDMs transfected with pEGFP-GPNMB plasmid (green) and mApple-Moesin-N-14 (red) and then treated with CF647 stained-OxLDL (purple) for 36h.

Supplementary Movie 8: Representative living cell videos of WT BMDMs transfected with pEGFP-GPNMB plasmid (green) and mCh-KIF5B*-strep (red) and then treated with CF647 stained-OxLDL (purple) for 36h.

Supplementary Movie 9: Representative living cell videos of WT BMDMs transfected with pEGFP-GPNMB plasmid (green) and σ 2-mCherry plasmid (red) and then treated with CF647 stained-OxLDL (purple) for 36h.

Supplementary Movie 10: Representative living cell videos of WT BMDMs transfected with pEGFP-GPNMB plasmid (green) and mPlum-Rab11a plasmid (red) and then treated with CF647 stained-OxLDL (purple) for 36h.