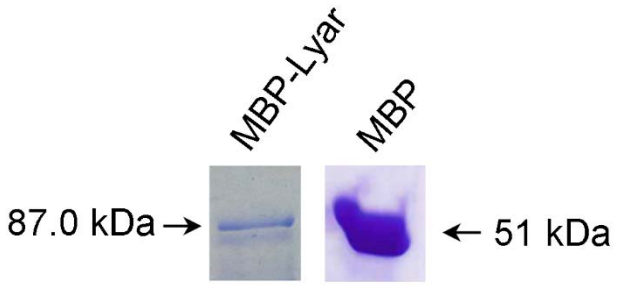
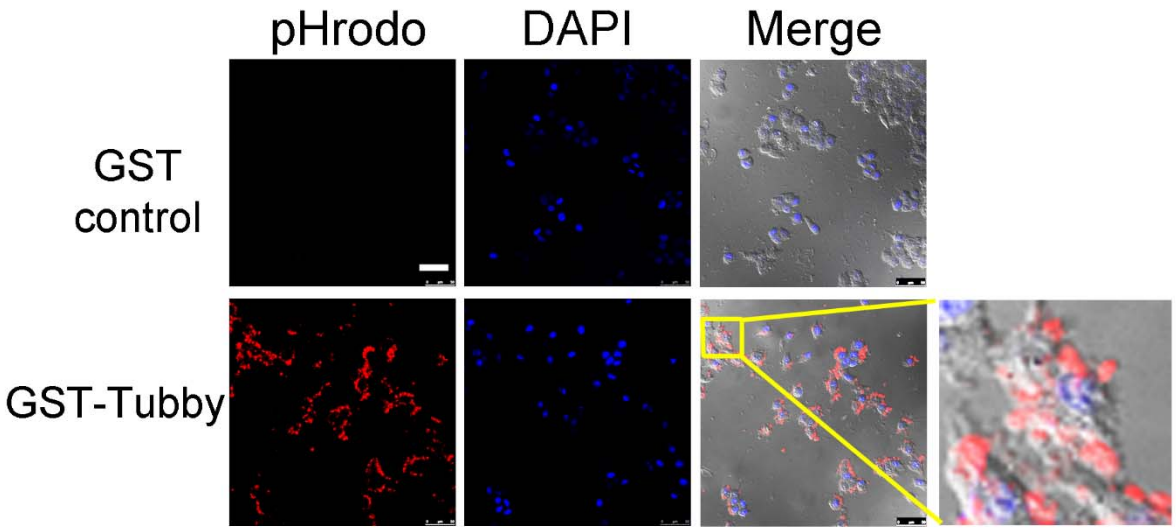
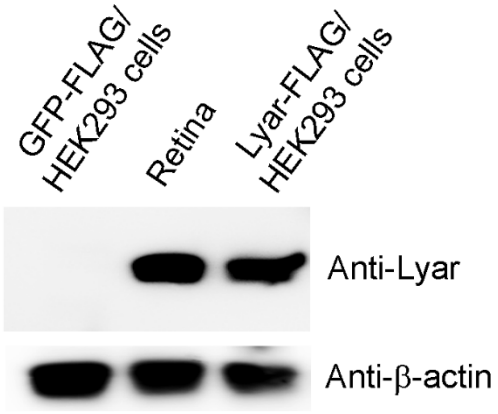


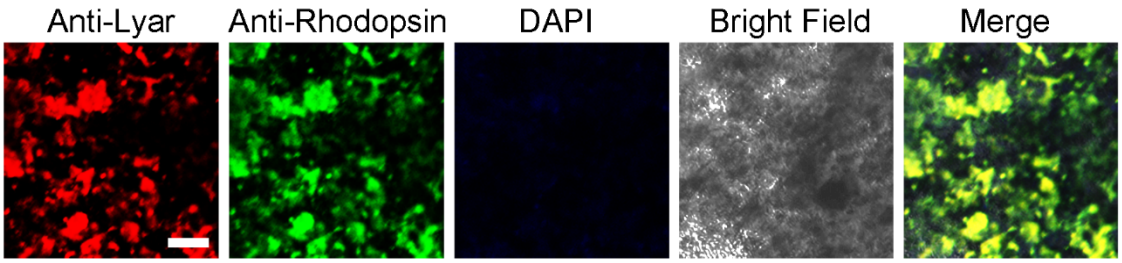
Supplementary Figure 1. SDS-PAGE analysis of purified MBP-Lyar and MBP.



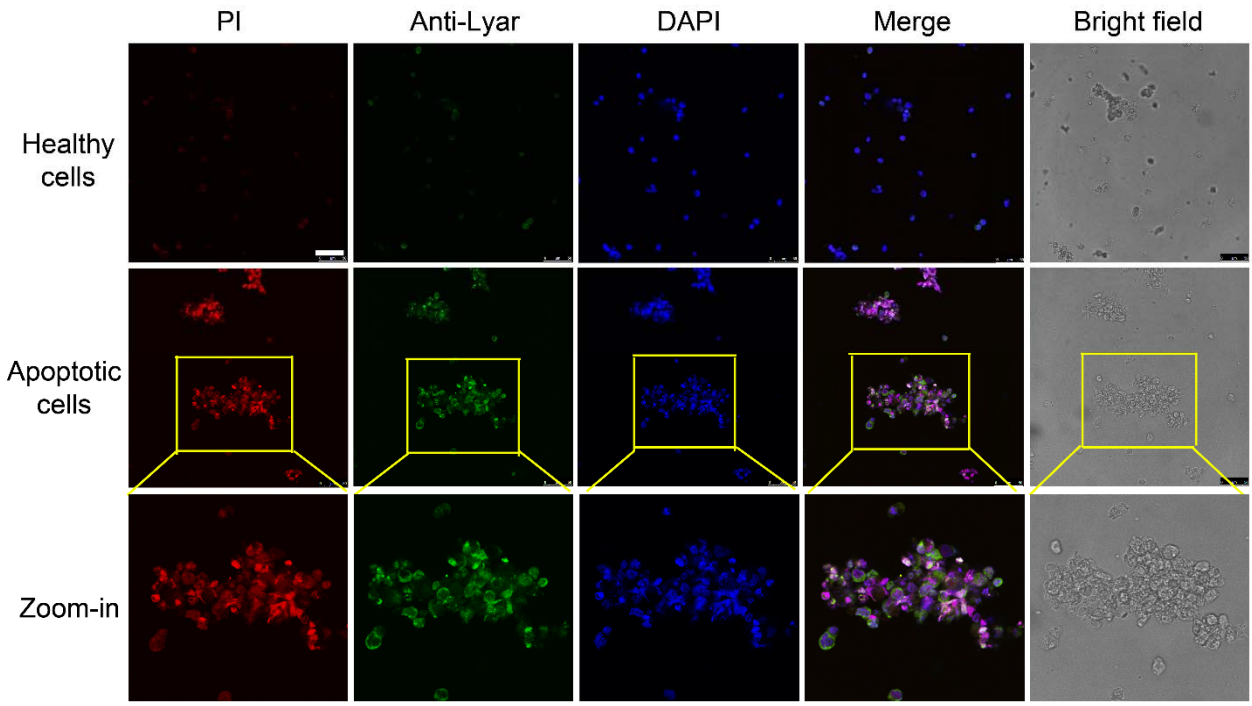
Supplementary Figure 2. Tubby as a positive control for RPE phagocytosis. Phagocytosis was performed as in Fig. 1A using purified glutathione S-transferase (GST)-tubby fusion protein or GST (10 nM each) as positive and negative controls. Scale bar = 50 μm.



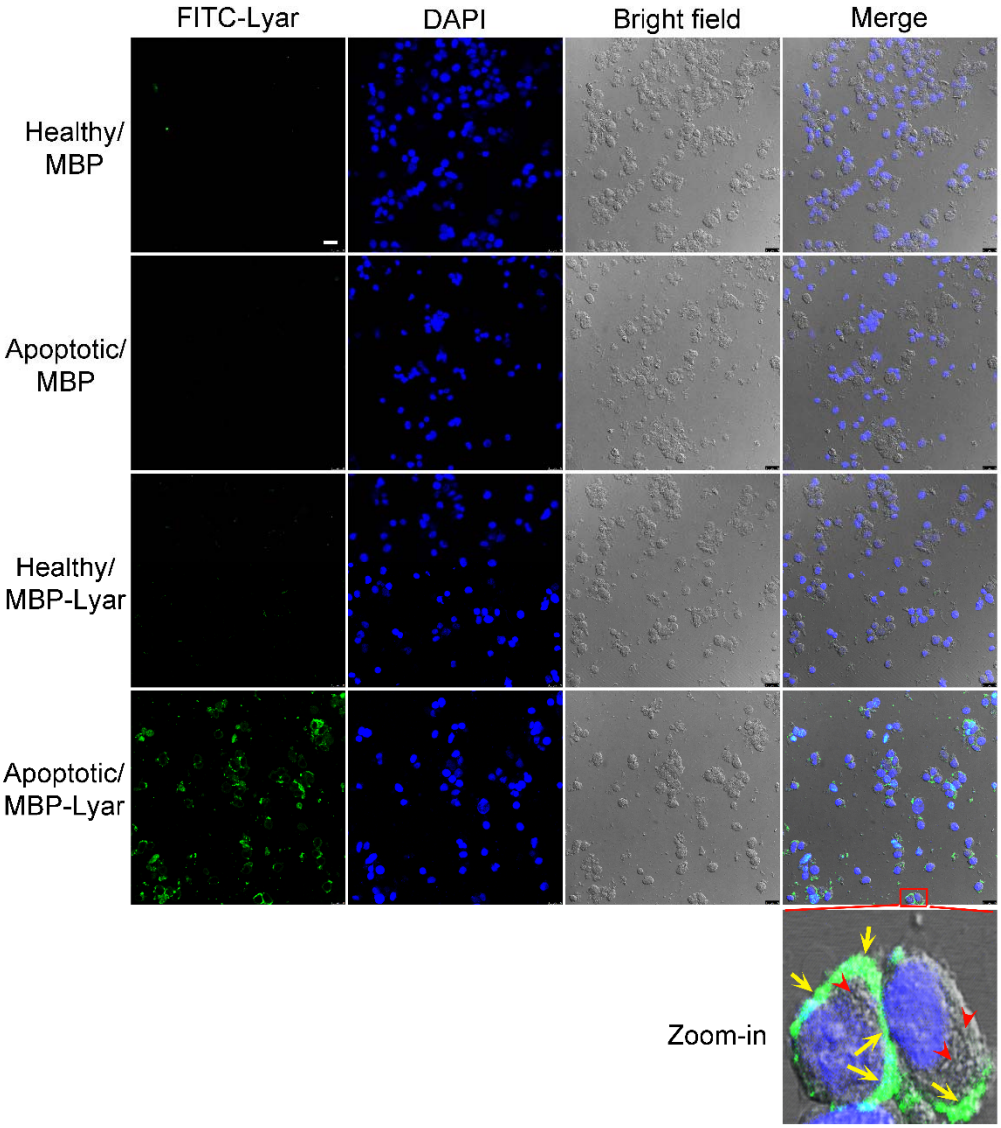
Supplementary Figure 3. Anti-Lyar antibody recognizes Lyar-FLAG expressed in HEK293 cells. HEK293 cells were transfected with Lyar-FLAG plasmids. After 48 h, HEK293 cells were analyzed by Western blot using anti-Lyar antibody. Mouse retina were serve as a positive control (100 μg protein/lane).



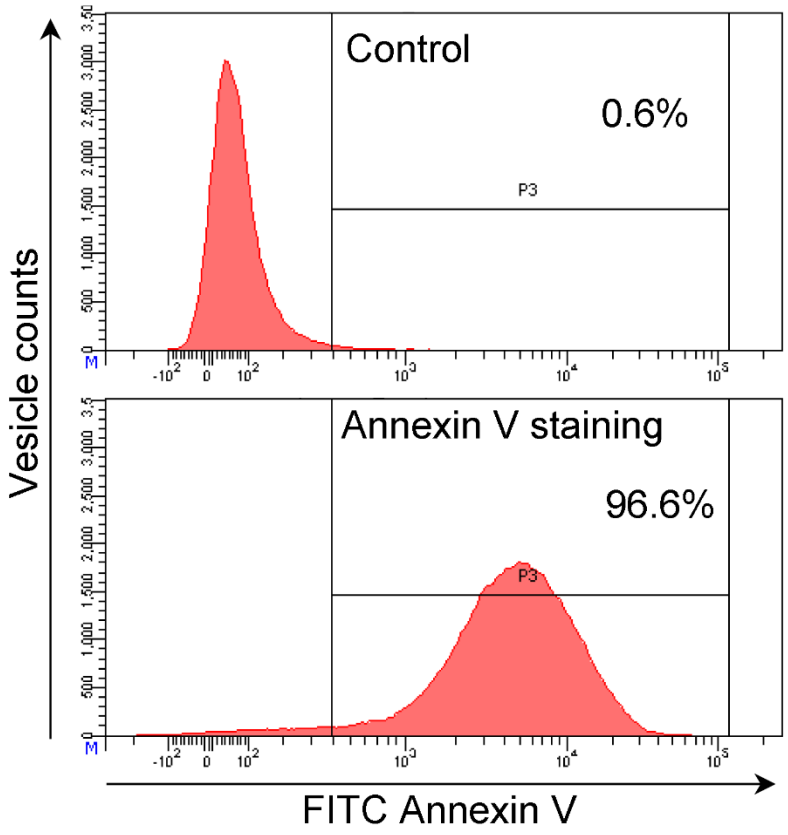
Supplementary Figure 4. Analysis of shed POS vesicles. Shed POS vesicles were immunostained with rabbit anti-Lyar and mouse anti-rhodopsin antibodies, followed by Texas red-labeled anti-rabbit IgG secondary antibody and FITC-labeled anti-mouse IgG secondary antibody. No nucleus was detected by DAPI staining. Lyar/rhodopsin/DAPI signals were merged. Scale bar = 10 μm.



Supplementary Figure 5. Lyar binds to apoptotic cells. Lyar-FLAG was expressed in HEK293 cells, followed by induction of apoptosis. Lyar binding to apoptotic cells was detected with anti-FLAG antibody, followed by FITC-labeled secondary antibody. Apoptotic cells were labeled with PI and analyzed by fluorescence microscopy. Scale bar = 50 μm.



Supplementary Figure 6. Lyar binds to the surface of apoptotic cells. MBP and MBP-Lyar were labeled with FITC and incubated with apoptotic or healthy HEK293 cells. After washing, cells were analyzed by confocal microscopy. FITC-Lyar bound to the surface of apoptotic cells (indicated by yellow arrows in Zoom-in, but not cytoplasm (indicated by red arrowheads) or nuclei (DAPI signal). Scale bar = 25 μm.



Supplementary Figure 7. Analysis of phosphatidylserine on POS vesicles. Shed POS vesicles was analyzed for its surface expression of phosphatidylserine by flow cytometry using FITC-labeled annexin V.