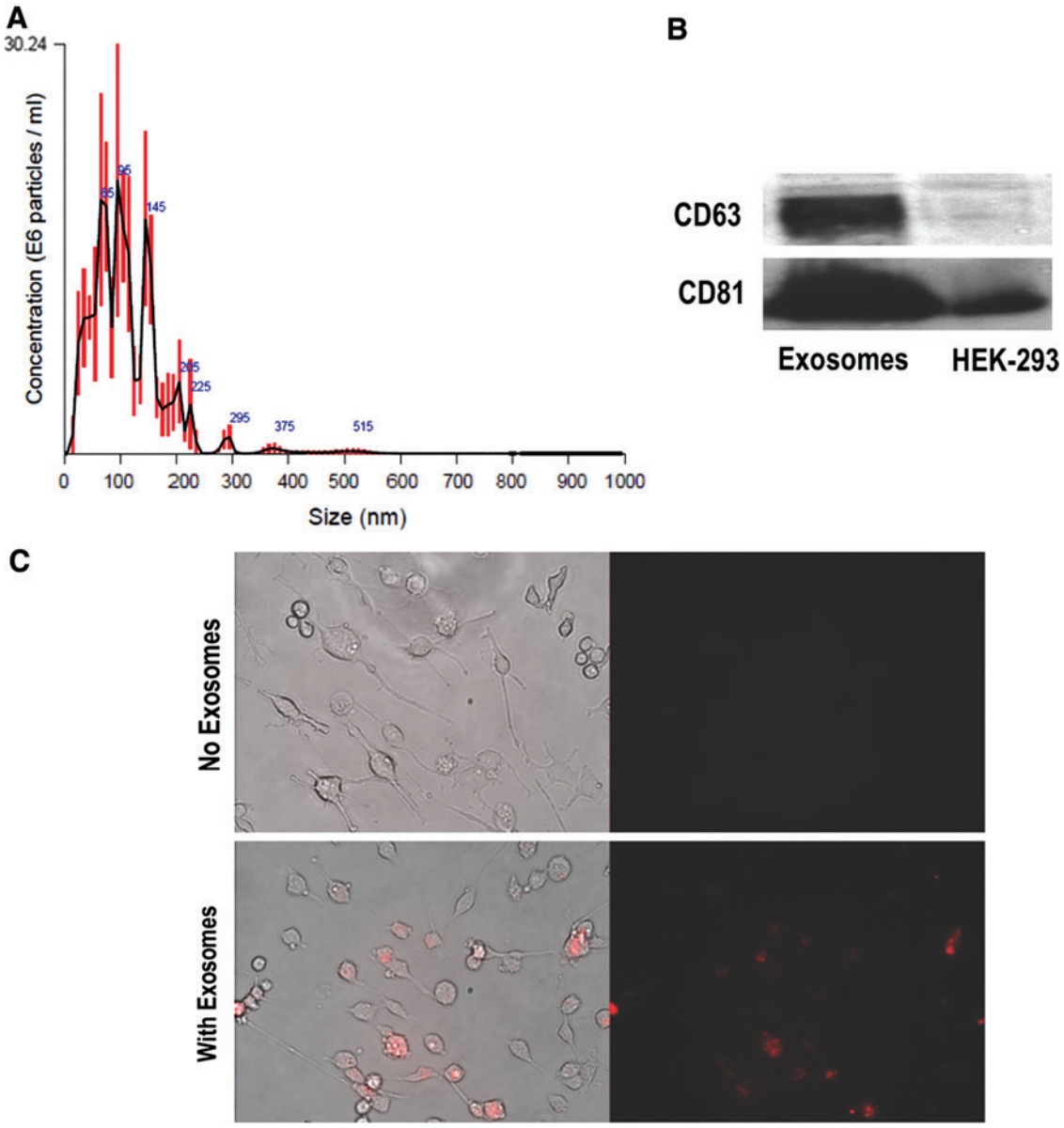

SUPPLEMENTARY FIG. S5. Uptake of miR-15a into the human retinal cells. We isolated the exosomal pellets from 60 mL of HEK-293 cell culture media. **(A)** NTA determined that the average size of the particles in the cell culture media was (107.1 ± 3.5) nm, and the concentration was 2.12×10^{10} particles/mL. **(B)** We used Western blot to confirm common surface markers of exosomes, CD-63 and CD-81 on the exosomes isolated from HEK-293 cells. **(C)** After adding HEK-293 cells, derived labeled exoRNAs were then added to the culture media of MIO-M1 (target cells) cells. Uptake was assessed at multiple time points after adding tagged-exoRNA in the media. Fluorescent microscopy demonstrated uptake of tagged-exoRNAs in MIO-M1 cells 2 h after adding the labeled exosomes to the culture media. The *lower left panel* is the merge field of bright light and the RFP (Ex 460 nm and Em 650 nm) filter, and the *lower right panel* is the RFP filter image alone. The *upper panels* served as the negative control, where we added the dye directly into the exosome-depleted FBS cell culture media (these media were not collected from the HEK-293 cell culture). FBS, fetal bovine serum; HEK, human embryonic kidney cell; NTA, nanoparticle tracking analysis; RFP, red fluorescent protein.