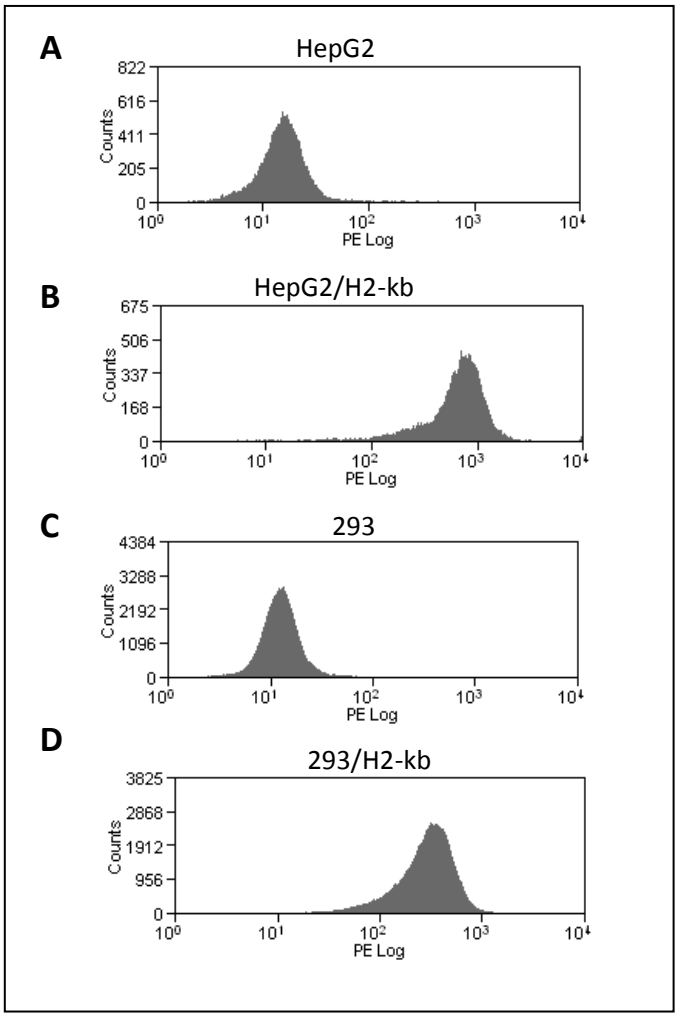
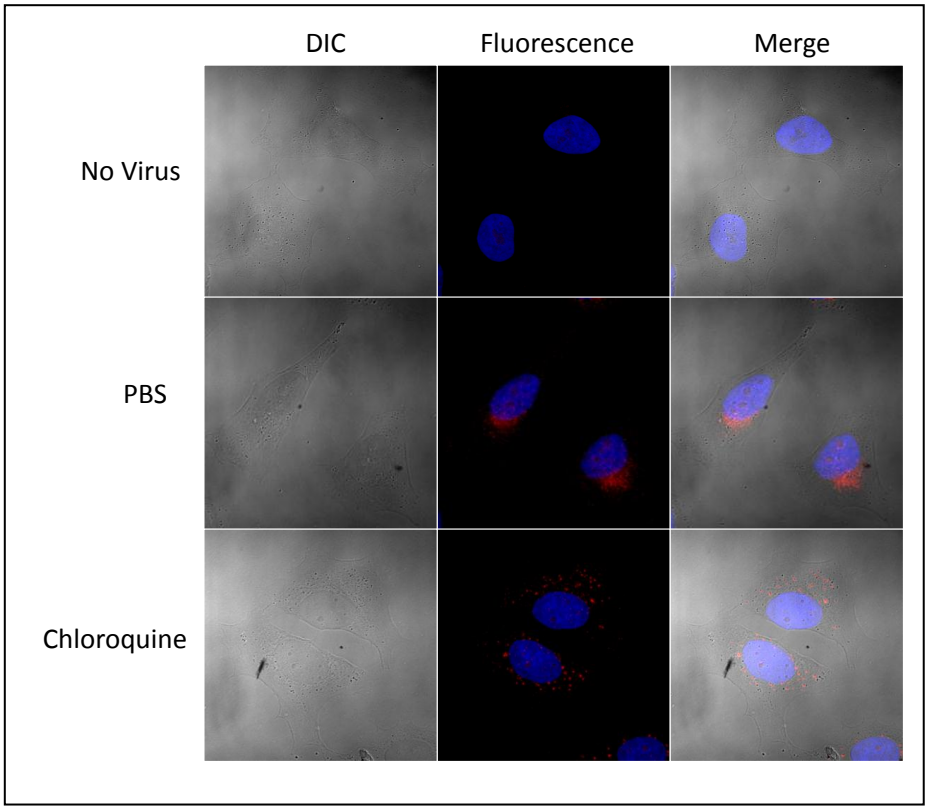
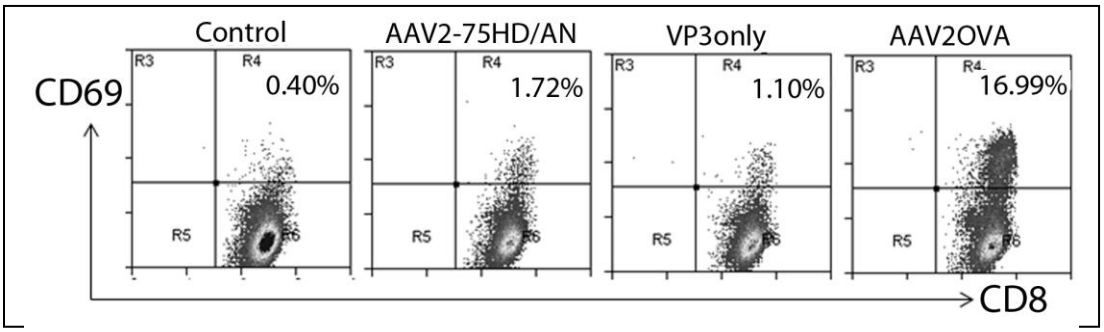


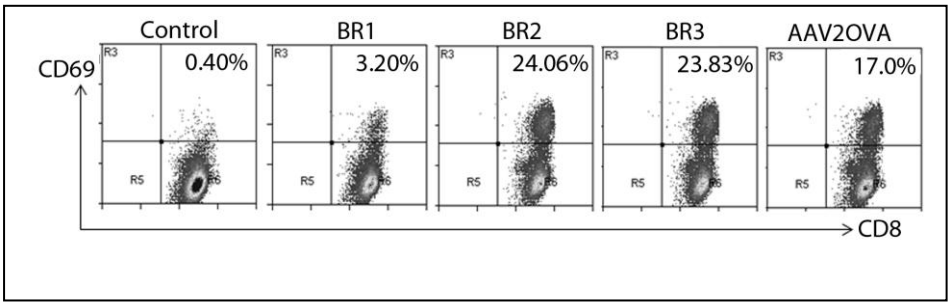
Supplementary Figure 1. H2-kb expression in HepG2/H2-kb and 293/H2-kb cells. HepG2 and 293 cells were infected by lentivirus vector lenti/H2-kb overnight. Blasticidin S was added into the culture medium at 10ug/ml for selection, and cells were split every 3-4 days with fresh medium and blasticidin S. The cell lines were established by serial dilution to a single cell in the presence of blasticidin S. Cell lines and parent cells were incubated with medium containing mouse anti-H2-kb antibody from TIB139 culture. After washing, secondary antibody PE-conjugated rat anti-mouse Ig was added. Expression of H2-kb was detected by flow cytometry. **A:** HepG2 cells, **B:** HepG2/H2-kb cells, **C:** 293 cells**, D:** 293/H2-kb cells.



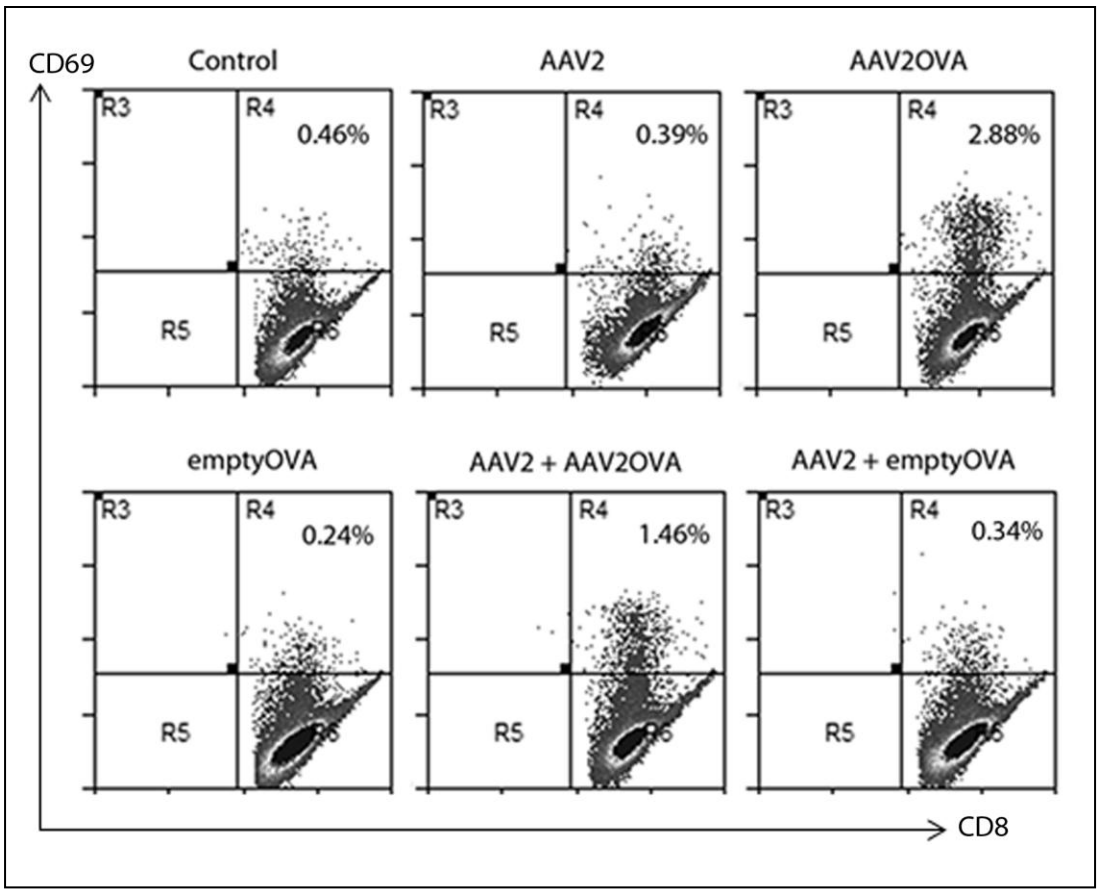
Supplementary Figure 2. **The effect of acidification inhibitors on AAV2 entry.** AAV2 was labeled with Cy5 dye (Xiao, PJ et al. Molecular Therapy 2012, 20(2): 317-28). HeLa cells ($5X10^4$ cells/well) were plated on poly-L-lysine coated 12 mm glass coverslips 18 h before infection. 2h prior to infection, cells were either treated with Chloroquine (100 uM) or vehicle (PBS), which remained present for the duration of infection. Pulse-infection with Cy5-labeled AAV2/CMV-GFP was performed as follows: $1X10^5$ vg/cell were added to cells for 60 min at 4°C. Unbound virus was removed by washing cells three times with PBS. Pre-warmed media either containing Chloroquine or PBS was then added and cells were incubated at 37 °C (0h post infection). Four hours post-infection, cells were washed three times with PBS and fixed with 2% paraformaldehyde for 15 min at room temperature. Following three washes with PBS, cells were permeabilized with 0.1% Triton X-100 in PBS for 5 min at room temperature. Cells were then washed three times with PBS and coverslips were affixed to slides with a mounting medium (Prolong Antifade Gold with DAPI; Molecular Probes). Images were captured on a Zeiss LSM710 laser scanning confocal microscope using a Zeiss Plan-Apochromat 63X/NA 1.40 oil objective. Images were deconvolved using AutoQuant X3 software (MediaCybernetics) and processed using IMARIS software (Bitplane).



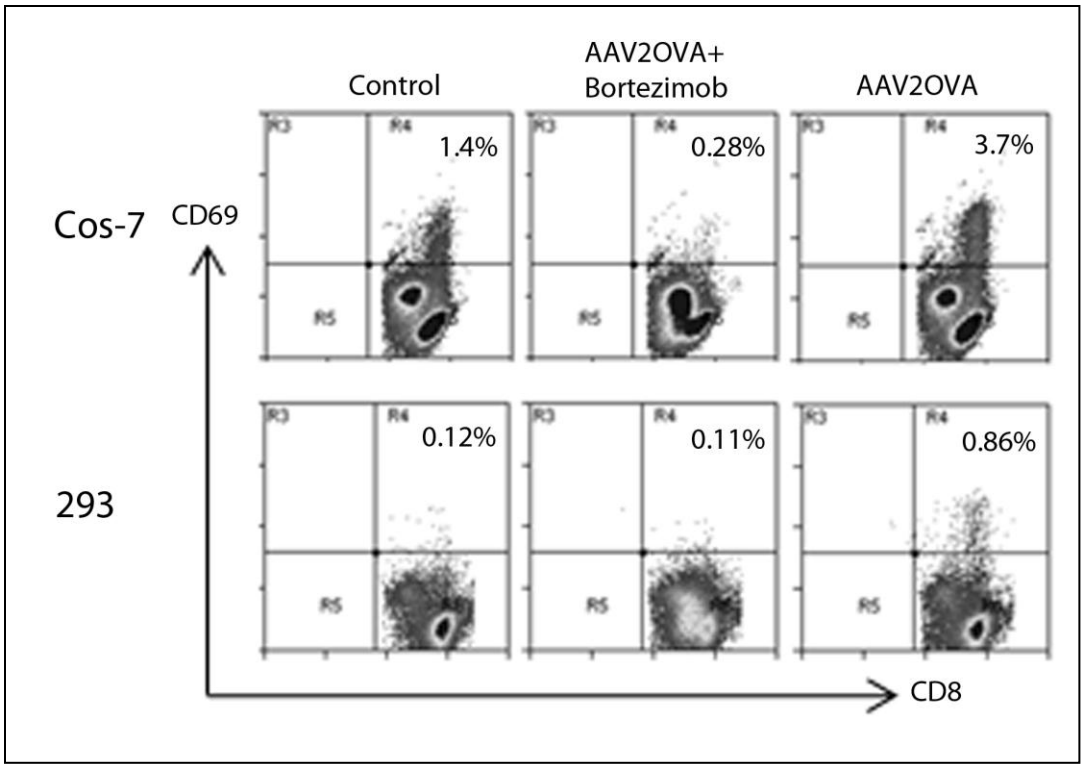
Supplementary Figure 3. Mutation of PLA and VP3 only virion reduced AAV capsid antigen presentation. Representative data were from one experiment.



Supplementary Figure 4. The effect of AAV NLSs on capsid antigen presentation. Representative data were from one experiment.



Supplementary Figure 5 The effect of AAV full particles on antigen presentation from empty capsids. Representative data were from one experiment.



Supplementary Figure 6. The effect of proteasome inhibitor on antigen presentation from AAV2 capsids in Cos-7 and 293 cells. Representative data were from one experiment.