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Electronic Supplementary Material

Endosomes and Microtubles are Required for Productive Infection in Aquareovirus

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Movie S1. Real-time tracking of QD-labeled GCRVs internalization into live cell. Purified QD-bio-GCRVs were added to the CIK cells directly for dynamic tracking at 28 °C without a pre-binding process at 4 °C, and immediately recorded by the laser confocal microscope. The QD-labeled viruses (red) attached to cell membrane and then entered into the cytoplasm. And the complete internalization process of a single virus into a live cell can be observed. More red fluorescence was observed in the cytoplasm. Scale bars: 11 μm.

Movie S2. QD-bio-GCRV moving in CIK cell treated with CQ. CIK cells were incubated with CQ (25 μmol/L) prior to exposure to the QD-bio-GCRV. After pretreatment, CIK cells were infected with QD-bio-GCRVs for 30 min at 4 °C for synchronization and then placed at 28 °C in the presence of the drug for real-time tracking. Dynamic video was recorded using the confocal microscope. Movie from the time-sequence images showed that CQ significantly block the uptake of GCRVs in the cells treated with the inhibitor, and QD-bio-GCRVs were trapped on the cell surface. Scale bars: 11 μm.

Movie S3. QD-bio-GCRV traveling along microtubule. After a 24 h post-transfection with pGFP-MAP4, CIK cells were incubated with QD-bio-GCRVs for 30 min then placed at 28 °C for real-time tracking. Live cell images were captured using time-lapse confocal fluorescence microscopy. Real-time tracking showed that GCRV particles (red) co-localized with microtubules (green), and transported along microtubules in the CIK cell. Scale bars: 5 μm.