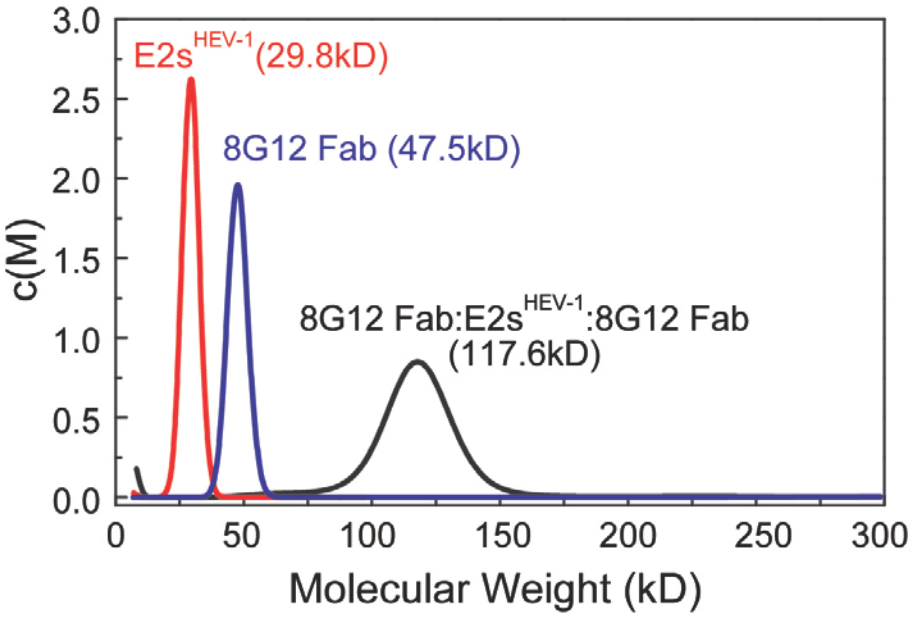


**Supplementary information, Figure S7** Stoichiometry of E2s$^{HEV-4}$:8G12 complex in solution. The apparent molecular weights of E2s$^{HEV-4}$, 8G12 Fab, and their complex were measured by c(s) fitting in sedimentation velocity (SV) by analytical ultra-centrifugation. The c(M) profile of E2s$^{HEV-4}$ and 8G12 Fab alone is denoted as red and blue lines, respectively. The c(M) distribution for E2s$^{HEV-4}$:8G12 complex is highlighted in a black line. E2s$^{HEV-4}$ exists as a dimer of 29.8 kDa, and 8G12 Fab is monomeric as 47.5 kDa. The E2s$^{HEV-4}$:8G12 complex exists in immune assembly with molecular weight of 117.6 kDa, indicating one E2s$^{HEV-4}$ dimer binds to two 8G12 Fab, as observed in the crystal structure.