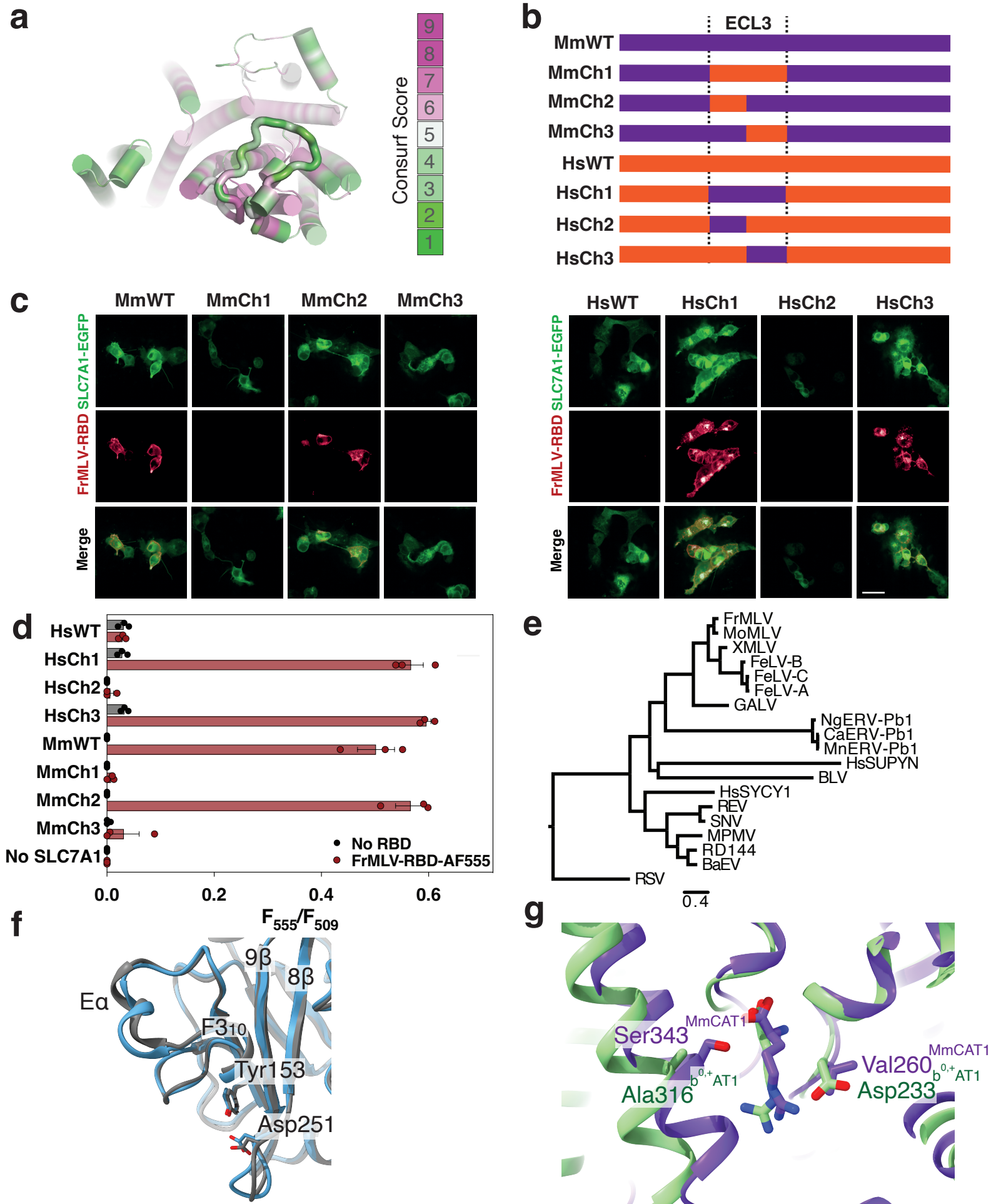




Extended Data Figure 9. Viral binding of CAT1, orthoretrovirus RBDs, and their orthologs proteins. (a) Sequence conservation of MmCAT1 homologs proteins. (b) Construct design of SLC7A1 ECL3 chimeras. (c) Confocal imaging and (d) normalized colocalization intensity of HEK293 cells expressing EGFP-tagged human and mouse SLC7A1 proteins, and ECL3 loop chimeras, stained with FrMLV-RBD-AF555. Scale bar is 50 μ m. (e) Phylogenetic tree of orthoretrovirus envelope proteins. (f) Overlay of FrMLV-RBD bound to MmCAT1 and apo (PDB: 1AOL) colored in grey and blue, respectively. (g) Arginine binding of MmCAT1 and b^{0,+}AT1, colored in purple and green, respectively.