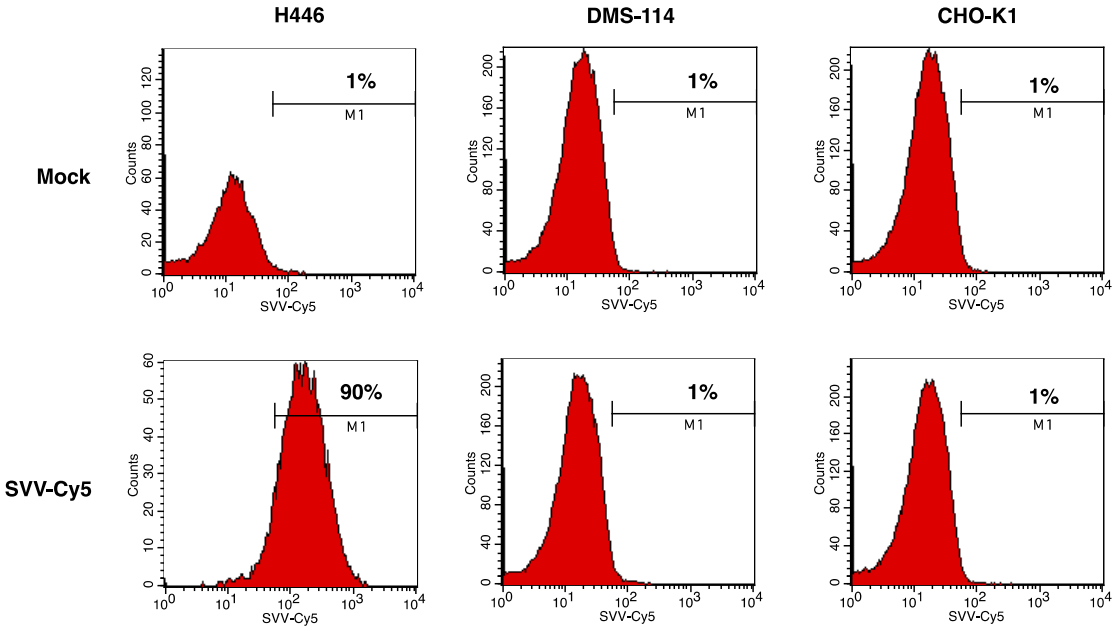
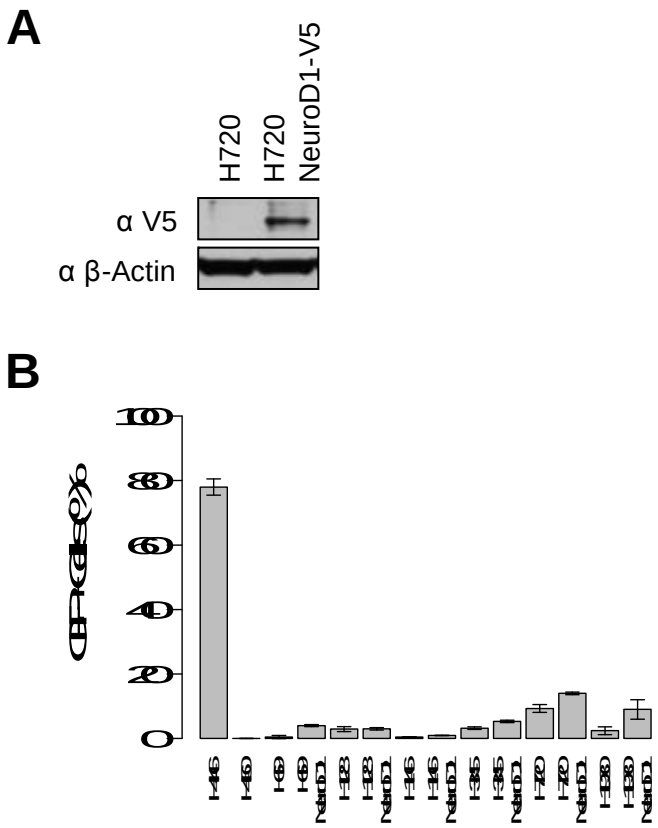
Supplementary Materials

Supplementary Table 1. Rank ordered list of differentially expressed genes between SVV-001 permissive and non-permissive SCLC cell lines and primary xenografts. This large table is available as a separate file online.

Supplementary Figures



Supplementary Figure 1. SVV binding assay in SVV-001 permissive and non-permissive cell lines. Purified SVV-001 was labeled on primary amines with red fluorescent Cy5 dye using NHS ester chemistry as previously described for poliovirus (1). SVV-Cy5 was incubated at 37 ºC for 30' with various cell lines in 50 µL of Opti-MEM. After incubation, cells were washed twice with PBS with 1 mM EDTA and analyzed by flow cytometry on a FACSCalibur (BD Biosciences) using the 635 nm laser and 661/16 nm band-pass filter. SVV-Cy5 binds efficiently to H446 cells, while binding is not detectable for either DMS-114 or CHO-K1 cells. Percentage of cells in the M1 (positive binding) range is indicated. Lack of an appropriate attachment molecule or receptor may be one mechanism by which non-permissive cells are resistant to infection by SVV.



Supplementary Figure 2. Persistent SVV-001 resistance in non-permissive cell lines transduced with *NEUROD1*. NEUROD1 was cloned from H446 cDNA by PCR to include attB lambda phage recombination sites using the forward primer 5'-GGGGACAAGTTTGTACAAAAAAGCAGGCTTCACCATGACCAAATCGTACAGCGA-3' and the reverse primer 5'-GGGGACCACTTTGTACAAGAAAGCTGGGTCATCATGAAATATGGCATTGAGC-3'. The PCR product was Gateway® cloned into pDONR221 (Invitrogen), sequence verified, then shuttled into pLENTI6 (Invitrogen). The reverse primer includes no stop codon to allow read-through into the V5 epitope tag present in pLENTI6. pLENTI6-NEUROD1 was transfected into HEK293T cells along with lentiviral packaging vectors as previously described (2). Filtered lentiviral supernatants were added to cultures of a

panel of non-permissive cell lines in the presence of 8 µg/mL polybrene. After 48h, blasticidin selection was started. After 14 days, stable cell lines were tested for permissivity to SVV-GFP by flow cytometry. **A)** *NEUROD1* overexpression was confirmed by Western blotting for the V5 epitope tag (H720 parental and NEUROD1-V5 lines are shown). **B)** Percentage of SVV-GFP infected cells is shown as determined by flow cytometry. Each cell line was tested in triplicate and uncertainty is summarized by standard deviation.

References

1. Brandenburg B, Lee LY, Lakadamyali M*, et al.* Imaging Poliovirus Entry in Live Cells. In. *Plos Biol*; 2007, e183.

2. Kuroda H, Kutner RH, Bazan NG*, et al.* Simplified lentivirus vector production in protein-free media using polyethylenimine-mediated transfection. In. *J Virol Methods*; 2009, 113-121.