**Supplemental Materials (Scherer et al.):**

Supplemental Movie 1 (to Figure 1D):

PK15-mNG-VP26 cells express functional mNG-VP26. A confluent layer of PK15-mNG-VP26 cells was infected with PRV180 at 0.01 MOI and covered with 1% methylcellulose to limit virus diffusion. After initial plaques were detectable, images were taken every 5 min over 12 h. The cells depicted were infected approximately at the beginning of the movie. The change of mNG-VP26 localization and clustering into assemblons is clearly visible as infection progresses. Scale bar is 25 μm, time stamp is hours:minutes.

Supplemental Movie 2 (to Figure 3B):

Dual-color PRV180G movement during entry. SCG neuronal cells were grown in modified Campenot chambers for over two weeks and infected with PRV180G in the N compartment 1 - 2 h before being imaged in the M compartment. Representative 15sec (280frame) movie of an entering dual-color capsid is shown. First frame is time projection of green channel in greyscale. Scale bar is 5 μm, time stamp is seconds.milliseconds.

Supplemental Movie 3 (to Figure 3B):

Single-color PRV180G movement during egress. SCG neuronal cells were grown in modified Campenot chambers for over two weeks and infected with PRV180G in the N compartment 12 - 13 h before being imaged in the M compartment. Representative 15sec (280frame) movie of an entering dual-color capsid is shown. First frame is time projection of red channel in greyscale. Scale bar is 5 μm, time stamp is seconds.milliseconds.