

## Supplemental Material.

**Supplemental Figure 1 – Identification of UL17, UL6, UL25 and UL36 proteins by mass spectrometry.** Protein mass fingerprinting was performed on the proteins extracted from gel bands c-1, c-2, c-3 and v-1 in Fig. 5.

**Supplemental Table 1 : Copy Number Determinations for HSV-1 UL25 and UL17**

Type of capsid	UL25	UL17	Method	Reference
B-capsids	42 ± 17	-	SDS-PAGE w. CBB	Ogasawara et al (2001)
B-capsids	26.8 ± 6.2	19.2 ± 5.0	SDS-PAGE w. SYPRO (2)	Thurlow et al (2006)
B-capsids	20 ± 11	-	Quantitative Western	Newcomb et al (2006)
C-capsids	75 ± 10	-	Quantitative Western	Newcomb et al (2006)
A-capsids	56 ± 10	-	Quantitative Western	Newcomb et al (2006)
C-capsids	82 ± 19	36 ± 8	SDS-PAGE w. CBB (2, 3)	This study
A-capsids	17 ± 4	8 ± 3	SDS-PAGE w. CBB (2, 3)	This study

(1) This study also estimated UL6 and UL25 in B-capsids and C-capsids, calibrated relative to the very much more intense UL19 band ((Newcomb et al., 2006; Ogasawara et al., 2001; Sheaffer et al., 2001; Thurlow et al., 2006) The authors concluded that there is about the same amount of UL6 in B-capsids and C-capsids but these numbers were several-fold higher than expected, probably reflecting saturation of the densely stained UL19 gel band.

(2) Calibrated relative to 12 copies of UL6 per capsid.

(3) The quantitations were performed on two different gels and calibrated against both UL38 (50 kDa; 320 copies per capsid) and UL18 (35 kDa; 640 copies per capsid). The numbers given are the means and standard deviations of these 4 measurements. By the same procedure, we obtained values of  $10 \pm 2$  copies for UL6, in reasonable agreement with the expected value of 12 copies per capsid.

Newcomb, W. W., Homa, F. L., and Brown, J. C. (2006). Herpes simplex virus capsid structure: DNA packaging protein UL25 is located on the external surface of the capsid near the vertices. *J Virol* *80*, 6286-6294.

Ogasawara, M., Suzutani, T., Yoshida, I., and Azuma, M. (2001). Role of the UL25 gene product in packaging DNA into the herpes simplex virus capsid: location of UL25 product in the capsid and demonstration that it binds DNA. *J Virol* *75*, 1427-1436.

Sheaffer, A. K., Newcomb, W. W., Gao, M., Yu, D., Weller, S. K., Brown, J. C., and Tenney, D. J. (2001). Herpes simplex virus DNA cleavage and packaging proteins associate with the procapsid prior to its maturation. *J Virol* *75*, 687-698.

Thurlow, J. K., Murphy, M., Stow, N. D., and Preston, V. G. (2006). Herpes simplex virus type 1 DNA-packaging protein UL17 is required for efficient binding of UL25 to capsids. *J Virol* *80*, 2118-2126.

