

SUPPLEMENTAL DATA LEGENDS

S1-S7 Figures. Multiple sequence alignments for individual herpesvirus-conserved envelope glycoproteins. Clustal Omega server was used to align amino acid sequences of gB (S1 Figure), gH (S4 Figure), gL (S6 Figure), and gN (S7 Figure) between HSV-1 (1), HSV-2 (2), VZV, HCMV, and EBV, as well as gC (S2 Figure), gE (S3 Figure), and gI (S5 Figure) between the alphaherpesviruses. Predicted signal peptides and transmembrane regions are shaded in pink and blue, respectively. Unambiguous O-glycosylation sites are highlighted in yellow, whereas ambiguous sites are underlined in black, where the number above indicates the number of glycosites. Two ambiguous O-glycosylation sites from our previous publication (1) (HSV-1 gB 109-123 (HexHexNAc) and gE 135-143 (HexHexNAc)) were omitted from the alignment (S1 and S3 Figures), as we cannot exclude the possibility they could be part of an elongated structure on an adjacent site. Reference strain sequences were used for HSV-2, VZV, and EBV due to incomplete or unavailable annotation of investigated strains. HSV-1 – human herpes simplex virus type 1 (strain 17), HSV-2 – human herpes simplex virus type 2 (strain HG52), VZV – varicella-zoster virus (strain Dumas), HCMV – human cytomegalovirus (strain Towne), EBV – Epstein-Barr virus (strain AG876).

S1 Dataset. List of individual herpesvirus derived glycopeptides. The tables list individual virus derived glycopeptides identified with the different digestion protocols and enrichment strategies. PSM (peptide spectrum match) of the each proposed candidate was manually inspected.

S2 Dataset. Indexed reference spectra for VZV clinical sample. VZV-derived glycopeptide MS/MS spectra identified in the clinical specimen are provided.

S3 Dataset. Indexed reference spectra for VZV-infected total cell lysate. VZV-derived glycopeptide MS/MS spectra identified in the VZV-infected HEL fibroblasts are provided.

S4 Dataset. Indexed reference spectra for HCMV-infected total cell lysate. HCMV-derived glycopeptide MS/MS spectra identified in the HCMV-infected HEL fibroblasts are provided.

S5 Dataset. Indexed reference spectra for EBV-transformed total cell lysate. EBV-derived glycopeptide MS/MS spectra identified in the EBV-transformed P3HR1 human Burkitt's lymphoma B-cell line are provided.

REFERENCES

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2. Iversen, M. B., Reinert, L. S., Thomsen, M. K., Bagdonaite, I., Nandakumar, R., Cheshenko, N., Prabakaran, T., Vakhrushev, S. Y., Krzyzowska, M., Kratholm, S. K., Ruiz-Perez, F., Petersen, S. V., Goriely, S., Bibby, B. M., Eriksson, K., Ruland, J., Thomsen, A. R., Herold, B. C., Wandall, H. H., Frische, S., Holm, C. K., and Paludan, S. R. (2015) An innate antiviral pathway acting before interferons at epithelial surfaces. *Nat. Immunol.*