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Supplemental Information

Identifying and Tracking Low-Frequency

Virus-Specific TCR Clonotypes Using

High-Throughput Sequencing

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Supplementary Figure 1. Assessment of prior exposure in LOO analyses and independent cohort of mice. Related to Figure 3. A) ROC curve representing the overall accuracy of the diagnostic classifier to distinguish between naïve samples and ACAM2000 vaccinated samples from the leave-one-out analyses (gray) compared to data from the full training set (black). Graphical representation of %VATS from mice pre- (naïve, gray, n=32) or post- (vaccinated, black, n=29 mice) vaccination in the LOO analyses. B) ROC curve comparing the overall accuracy of the diagnostic classifier from the full training set (black), LOO analysis (dark gray), and data from an independent cohort of mice pre- and post- ACAM2000 smallpox vaccination (light gray, n=20). Tabular results of the diagnostic classification of the independent cohort of ACAM2000 vaccinated mice. 18 of 20 (90%) naïve samples were correctly classified, as were 19 of 20 (95%) samples from mice post-vaccination. C) Comparison of the % VATS in naïve (left) and vaccinated (right) samples from the LOO analyses (black) and independent cross-validation cohort of ACAM2000-vaccinated mice (gray).

Supplementary Figure 2



Supplementary Figure 2. MATS diagnostic classification of naïve, ACAM2000 vaccinated and MPXV infected mice. Related to Figures 3 and 4. A) Graphical representation of %MATS in mice 2-weeks and 8-weeks after infection with MPXV (black), vaccination with ACAM2000 smallpox vaccine (grey) or naïve mice (white). B) ROC curve representing the overall accuracy of the diagnostic classifier to distinguish between naïve samples and samples from mice infected with MPXV (black) or vaccinated with ACAM2000 (gray). In a leave-one-out (LOO) analysis, 31 of 32 (97%) naïve samples were correctly classified, as were 58 of 58 (100%) samples from mice 2- and 8-week postinfection. 56 of 58 (96.5%) samples 2- and 8-weeks post-vaccination were correctly differentiated from naïve samples.