Characteristic	Ad26-MVA group N = 11 ¹	rVSV group N = 12 ¹	rVSV-booster group N = 8 ¹
Age at enrollment	25 [20; 31]	21 [20; 27]	26 [19; 29]
Age by class			
18-29	7 (64%)	9 (75%)	6 (75%)
30-39	3 (27%)	3 (25%)	1 (12%)
≥ 40	1 (9%)	0 (0%)	1 (12%)
Sex			
Female	5 (45%)	8 (67%)	4 (50%)
Male	6 (55%)	4 (33%)	4 (50%)
¹ Median [IQR]; n(%)			

Supplementary Table 1. Description of the population included in the T-cell response analysis at months (M) 24, M36, M48, and M60.

Supplementary Figure 1. Flow chart of the PREVAC immunological ancillary study



Supplementary Figure 2. Sampling schedule and immunological assays performed by time point. Created with BioRender.com released under a Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International license



Supplementary Figure 3. Magnitude of EBOV-specific CD4⁺ and CD8⁺ T-cell responses at months (M) 24, M36, M48, and M60 in the Ad26-MVA, rVSV, and rVSV-booster groups

Total cytokine (IFN- $\gamma \pm IL-2 \pm MIP1B \pm TNF$) levels (sum of the Boolean gates) produced by EBOVspecific CD4⁺ (left) and CD8⁺ (right) T cells from the Ad26-MVA, rVSV and rVSV-booster groups after in-vitro stimulation on D0 and re-stimulation on D8 with the EBOV peptide pools (1 µg/mL) at M24 (n=11 Ad26-MVA, n=12 rVSV, n=6, rVSV-booster) (green), M36 (n=10 Ad26-MVA, n=11 rVSV, n=8 rVSVbooster) (orange), M48 (n=9 Ad26-MVA, n=11 rVSV, n=7 rVSV-booster) (violet), and M60 (n=9 Ad26-MVA, n=10 rVSV, n=7 rVSV-booster) (blue) after vaccination. Each dot represents an individual value of total cytokine. The box plots show the median (middle line) and the first and third quartiles (boxes), and the whiskers show 1.5 fold the interquartile range (IQR) above and below the box. Bivariate model was used for inter-arm comparisons. FDR (Benjamini-Hochberg) method was used to adjust for test multiplicity for each arm comparison separately



Time point 🖶 M24 🖶 M36 🖶 M48 🖶 M60

Supplementary Figure 4. Gating strategy used for ex vivo intracellular staining (ICS) or Epimax analysis

