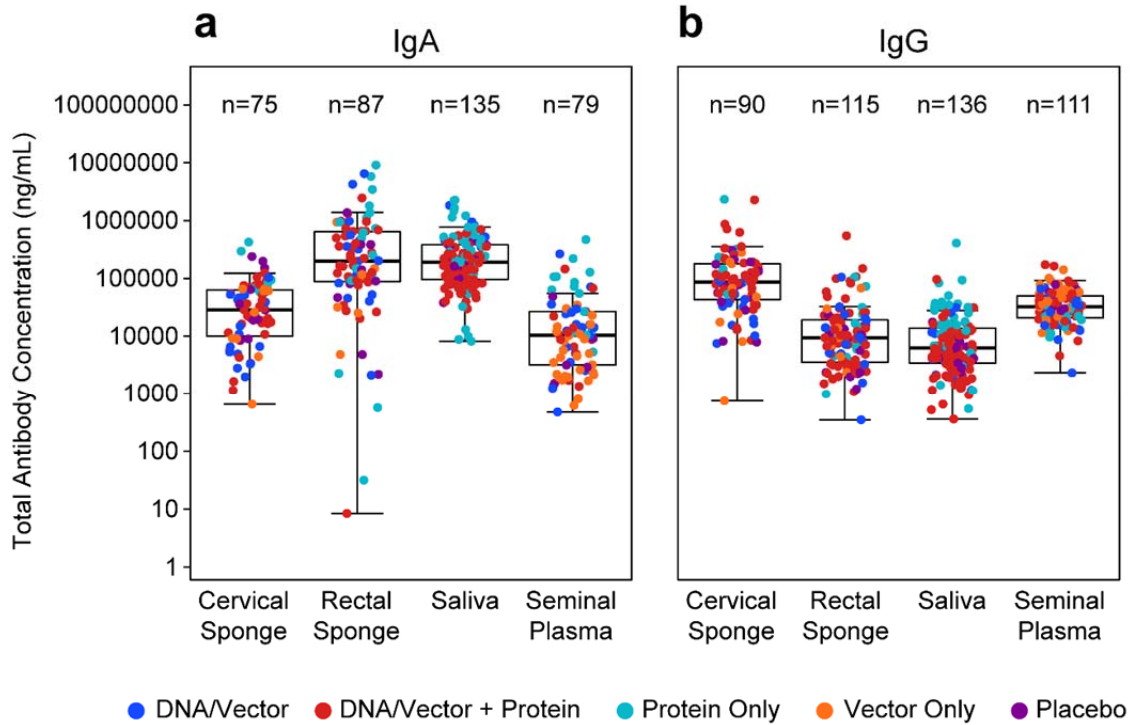


1 SUPPLEMENTARY MATERIAL



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**Supplementary Figure 1. Total Antibody concentrations.** Boxplots of total IgA and IgG concentrations by mucosal compartment are shown in **A. IgA** and **B. IgG**. The mid-line of the boxplot denotes the median response magnitude and the ends of the boxplot denote the 25<sup>th</sup> and 75<sup>th</sup> percentiles. Solid circles represent the observations of total IgA and IgG, which were color-coded for vaccine regimen types and placebo.

10 **Supplementary Table 1. Median Specific Activity Values by Vaccine Type and Mucosal**  
 11 **compartment.**

Isotype	Specimen Type	Vaccine Group	Median Response (SA)		
			Con 6 gp120/B	Con S gp140	gp41
<b>IgA</b>	Cervical Sponge	DNA/Vector	0.00025	0.00034	0.00113
		DNA/Vector+Protein	0.00020	0.00020	0.00137
		Placebo	0.00020	0.00020	0.00032
		Protein	0.00020	0.00267	0.00631
		Vector	0.00022	0.00020	0.00035
	Rectal Sponge	DNA/Vector	0.00020	0.00020	0.00055
		DNA/Vector+Protein	0.00020	0.00020	0.00113
		Placebo	0.00020	0.00020	0.00157
		Protein	0.00020	0.00020	0.00118
		Vector	0.00020	0.00020	0.00057
	Saliva	DNA/Vector	0.00020	0.00020	0.00021
		Protein	0.00020	0.00020	0.00020
	Semen	DNA/Vector	0.00020	0.00020	0.00120
		Placebo	0.00069	NA	0.00393
		Protein	0.00080	0.00235	0.00692
		Vector	0.00078	NA	0.00170
<b>IgG</b>	Cervical Sponge	DNA/Vector	0.00027	0.01519	0.02212
		DNA/Vector+Protein	0.01588	0.05361	0.01598
		Placebo	0.00020	0.00020	0.00053
		Protein	0.02189	0.26914	0.31871
		Vector	0.00030	0.00184	0.00896
	Rectal Sponge	DNA/Vector	0.00020	0.00036	0.00569
		DNA/Vector+Protein	0.01183	0.02628	0.00485
		Placebo	0.00056	0.00071	0.00146
		Protein	0.03526	0.31352	0.34506
		Vector	0.00020	0.00020	0.00020
	Saliva	DNA/Vector	0.00155	0.07355	0.09353
		DNA/Vector+Protein	0.01079	0.01336	0.00209
		Placebo	0.00048	0.00042	0.00069
		Protein	0.00305	0.02266	0.02233
	Semen	DNA/Vector	0.00023	0.01920	0.00390
		DNA/Vector+Protein	0.02649	0.02280	0.00282
Placebo		0.00020	0.00020	0.00020	
Protein		0.02552	0.26628	0.15374	
		Vector	0.00022	0.00469	0.00401

12 NA = Not applicable; SA values <0.0002 were set to a floor of 0.0002

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14 **Supplementary Table 2. Median Binding Magnitude (MFI) in Serum by Vaccine Type.**

Isotype	Specimen Type	Vaccine Group	Median Response (MFI)		
			Con 6 gp120/B	Con S gp140 CFI	gp41
<b>IgA</b>	Serum	DNA/Vector	<100	<100	151
		DNA/Vector+Protein	285	308	141
		Placebo	<100	<100	<100
		Protein	<100	1324	2165
		Vector	<100	<100	137
<b>IgG</b>	Serum	DNA/Vector	149	4936	21881
		DNA/Vector+Protein	18584	23000	9578
		Placebo	<100	<100	172
		Protein	3567	23000	23000
		Vector	605	12760	23000

15

16 **SUPPLEMENTARY ACKNOWLEDGEMENTS**

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