

**Supplementary Table S1:** The immune related gene expression assessed as mean of threshold cycle (Ct) value.

Gene	Time (hr)	Post-vaccination		Post-challenge	
		Vaccine	Control	Vaccine	Control
<b>MHC I</b>	12	19.375	17.805	16.728	11.200
	24	11.166	12.955	10.080	12.512
	48	19.498	17.607	12.015	11.428
<b>MHC II</b>	12	2.600	2.133	2.6475	1.630
	24	3.715	3.337	2.915	3.297
	48	4.767	2.294	1.868	2.065
<b>CCL 4</b>	12	6.860	4.525	4.218	3.827
	24	6.453	5.988	4.560	6.223
	48	6.778	5.188	4.690	6.347
<b>IL-1<math>\beta</math></b>	12	13.895	16.273	17.687	13.130
	24	11.740	11.695	11.200	13.902
	48	20.740	16.753	14.462	14.660
<b>IL-4/13B</b>	12	6.956	12.178	17.380	8.805
	24	11.455	15.995	8.310	10.128
	48	16.307	14.838	12.083	13.177
<b>IL-10</b>	12	9.240	15.225	20.778	11.895
	24	12.224	13.460	12.988	13.865
	48	21.354	21.230	13.822	13.435
<b>IgM</b>	12	9.545	13.142	14.733	15.382

<b>CD4</b>	24	12.48	11.377	14.460	14.690
	48	16.723	14.725	13.918	14.152
	12	3.188	4.057	8.932	8.085
<b>CD8-<math>\alpha</math></b>	24	6.498	8.543	13.358	14.075
	48	11.285	8.0183	9.598	10.883
	12	19.980	17.782	18.408	19.242
	24	17.020	16.900	20.567	18.510
	48	8.310	18.228	19.548	19.065