

Supplementary Mateiral

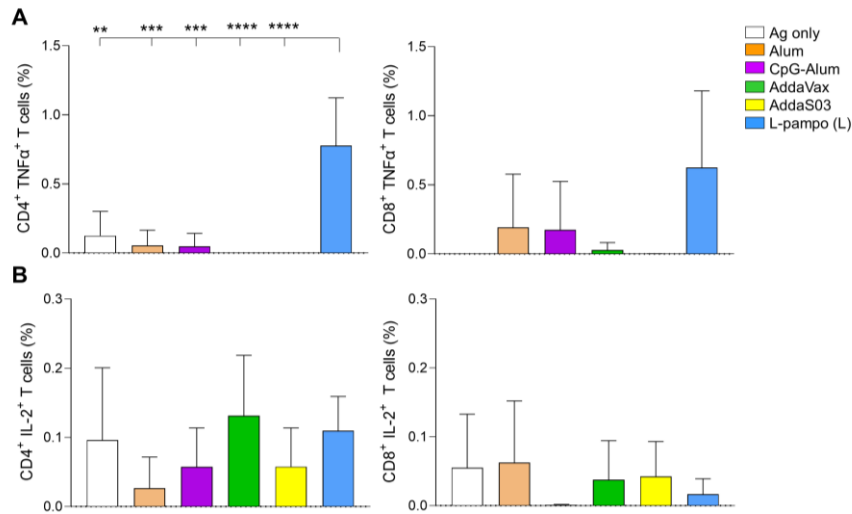


Figure S1. L-pampo increases TNF- α -producing T cells. Related to Figure 3. (A-B) BALB/c mice (total n=42; n=6/antigen only; n=8/Alum, AddaVax, AddaS03 or L-pampo(L); n=4/CpG-Alum) (n=4-8/group) were immunized with RBD-Fc with or without adjuvants i.m. on day 0 and day 21 as described in Figure 3A. At day 35, splenocytes were stimulated with PepMixTM SARS-CoV-2 (S-RBD) peptide pool and analyzed TNF- α or IL-2-producing CD4⁺ or CD8⁺ T cells by using intracellular cytokine assay. (A) Percentage of TNF- α -producing CD4⁺ or CD8⁺ T cells. (B) Percentage of IL-2-producing CD4⁺ or CD8⁺ T cells. Data shown are mean \pm SEM. Data reflect 2 independent experiments. Asterisks indicates statistically significant differences in comparison to the L-pampo (L). **p < 0.01, ***p < 0.001, ****p < 0.0001, one way ANOVA with Tukey's test.

Table S1. Detailed values of each group in Figures 1D and 2A-2B.

	Group	Sample1	Sample2	Sample3	Sample4	Sample5	Sample6	Sample7	Sample8
Figure 1D	Ag only	164.5	0.0	9471.9	316.8	668.8	610.2	0.0	5300.0
(Total Ab)	Alum	15015.6	617.2	0.0	0.0	6284.4	0.0	264.1	938.3
(GMT)	AddaVax	126718.8	87968.8	68046.9	112656.3	136093.8	356562.5	21171.9	87968.8
	AddaS03	328437.5	33437.5	102031.3	73906.3	12671.9	173593.8	157187.5	85625.0
	L-pampo (L)	694375.0	75078.1	194687.5	328437.5	328437.5	24875.0	276875.0	98515.6
	L-pampo (H)	133750.0	380000.0	276875.0	79765.6	230000.0	290937.5	143125.0	171250.0
Figure 1D	Ag only	223.0	100.0	200.0	610.2	2768.8	4784.4	996.9	16187.5
(RBD IgG1)	Alum	19703.1	164.5	200.0	250.0	7625.0	123.4	1173.4	4456.3
(GMT)	AddaVax	287500.0	181835.9	161328.1	275781.3	488125.0	1416250.0	68046.9	290937.5
	AddaS03	563281.3	68945.3	255078.1	137890.6	50468.8	441250.0	516250.0	244062.5
	L-pampo (L)	973437.5	16132.8	145468.8	403281.3	124375.0	75078.1	544375.0	262812.5
	L-pampo (H)	234531.3	262656.3	567343.8	36953.1	124375.0	1013125.0	143125.0	610000.0
Figure 1D	Ag only	0.0	0.0	410.5	0.0	0.0	0.0	0.0	0.0
(RBD IgG2a)	Alum	2346.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(GMT)	AddaVax	6425.0	1008.6	1043.8	2206.3	4515.6	4457.0	1937.5	680.5
	AddaS03	33312.5	346.1	1314.1	2721.9	328.5	3460.9	3285.2	868.0
	L-pampo (L)	89125.0	52562.5	110687.5	91000.0	97531.3	2406.3	108312.5	5984.4
	L-pampo (H)	10320.3	73187.5	42250.0	11500.0	86796.9	19703.1	97062.5	104093.8
Figure 1D	Ag only	0.0	0.0	645.3	0.0	0.0	0.0	0.0	246.5
(RBD IgG2b)	Alum	2956.3	0.0	0.0	0.0	246.5	0.0	463.3	0.0
(GMT)	AddaVax	29921.9	1103.1	2253.1	6171.9	6284.4	10221.9	310.9	1571.9
	AddaS03	70390.6	1829.7	2768.8	15253.9	269.9	6171.9	6757.8	5585.9
	L-pampo (L)	96171.9	16718.8	59843.8	140781.3	100859.4	1454.7	78593.8	10859.4
	L-pampo (H)	20527.3	56328.1	119687.5	21699.2	85625.0	53984.4	36367.2	26992.2
Figure 2A	Ag only	16.0	10.0	3.0	15.0	4.0	2.0	5.0	4.0
(IFN-γ SFCs)	Alum	21.0	7.0	10.0	13.0	11.0	6.0	14.0	12.0
(No.)	AddaVax	15.0	34.0	25.0	19.0	30.0	63.0	16.0	16.0
	AddaS03	39.0	13.0	29.0	17.0	21.0	19.0	17.0	10.0
	L-pampo (L)	220.0	38.0	44.0	77.0	80.0	63.0	108.0	62.0
	L-pampo (H)	31.0	42.0	151.0	47.0	225.0	57.0	149.0	60.0
Figure 2B	Ag only	650.8	923.8	634.0	783.3	492.0	975.0	1052.3	
((IFN-γ))	Alum	631.5	845.3	542.8	2614.0	2299.0	2198.0	1324.7	
(pg/ml)	AddaVax	1218.8	4665.3	3660.0	5523.0	3785.7	3597.7	3849.6	
	AddaS03	3732.8	4418.5	2646.8	2291.3	2935.7	2528.3	3932.3	
	L-pampo (L)	11975.0	11206.3	10762.8	7886.0	10782.7	5742.0	4109.0	
	L-pampo (H)	8188.3	14719.3	14482.3	12433.7	7919.3	6473.3	8068.3	

Table S2. Detailed values of each group in Figures 3D and 4A-4B.

	Group	Sample1	Sample2	Sample3	Sample4	Sample5	Sample6	Sample7	Sample8
Figure 3D	Ag only	2251.6	3190.6	252.3	0.0	269.9	439.8		
(Total Ab)	Alum	9851.6	10796.9	9500.0	6570.3	668.8	4457.0	0.0	586.7
(GMT)	CpG-Alum	80937.5	112656.3	89140.6	79765.6				
	AddaVax	52812.5	12343.8	82109.4	63359.4	71562.5	86796.9	28156.3	70390.6
	AddaS03	11757.8	22890.6	21718.8	21718.8	72687.5	110187.5	40812.5	17593.8
	L-pampo (L)	39296.9	35781.3	43398.4	26992.2	147812.5	112656.3	71562.5	26406.3
Figure 3D	Ag only	0.0	0.0	504.3	0.0	123.4	1150.0		
(RBD IgG1)	Alum	6101.6	7742.2	8328.1	4398.4	926.6	7268.8	0.0	1126.6
(GMT)	CpG-Alum	79765.6	117343.8	80937.5	70390.6				
	AddaVax	41054.7	10585.9	78593.8	72734.4	102031.3	136093.8	65703.1	92656.3
	AddaS03	11171.9	22890.6	24648.4	26992.2	107375.0	102031.3	87687.5	52062.5
	L-pampo (L)	24648.4	18203.1	58671.9	51601.6	102031.3	122031.3	119687.5	43984.4
Figure 3D	Ag only	0.0	0.0	0.0	0.0	0.0	0.0		
(RBD IgG2a)	Alum	135.2	199.6	170.3	158.6	0.0	0.0	0.0	0.0
(GMT)	CpG-Alum	13609.4	6101.6	10203.1	16187.5				
	AddaVax	7625.0	428.1	1234.4	1585.9	4632.8	2406.3	486.7	539.5
	AddaS03	228.9	516.0	457.4	357.8	1220.3	926.6	668.8	504.3
	L-pampo (L)	6101.6	9265.6	4632.8	4925.8	34718.8	9148.4	13375.0	6921.9
Figure 3D	Ag only	0.0	0.0	0.0	0.0	0.0	0.0		
(RBD IgG2b)	Alum	141.0	123.4	158.6	117.6	0.0	146.9	0.0	0.0
(GMT)	CpG-Alum	6921.9	5394.5	4046.9	6687.5				
	AddaVax	9031.3	645.3	3168.0	1996.1	4695.3	2585.9	868.0	727.3
	AddaS03	381.3	832.8	680.5	938.3	1320.3	1261.7	1203.1	793.0
	L-pampo (L)	3285.2	5101.6	4281.3	2640.6	8562.5	11031.3	9382.8	7742.2
Figure 4A	Ag only	14.0	22.0	3.0	11.0	7.0	4.0		
(IFN-γ SFCs)	Alum	39.0	35.0	37.0	10.0	0.0	5.0	17.0	6.0
(No.)	CpG-Alum	37.0	52.0	69.0	50.0				
	AddaVax	54.0	40.0	32.0	27.0	45.0	17.0	42.0	2.0
	AddaS03	2.0	22.0	34.0	37.0	33.0	14.0	20.0	10.0
	L-pampo (L)	32.0	62.0	70.0	69.0	82.0	46.0	82.0	18.0
Figure 4B	Ag only	305.8	479.0	331.0	291.3	435.8	240.2	1052.3	
((IFN-γ))	Alum	866.0	723.3	720.0	136.5	240.5	288.9	463.2	328.5
(pg/ml)	CpG-Alum	2201.0	2914.5	3160.3	2215.3				
	AddaVax	1533.5	795.0	676.0	694.8	1781.1	969.0	1382.8	830.8
	AddaS03	497.9	937.3	1074.3	990.3	2853.2	843.8	1262.8	626.3
	L-pampo (L)	1586.8	2469.5	2818.3	2994.8	8062.1	2665.3	7742.3	2853.7