

Supplementary data

***Leptospira* Lipid A is a potent adjuvant that induces sterilizing immunity against Leptospirosis.**

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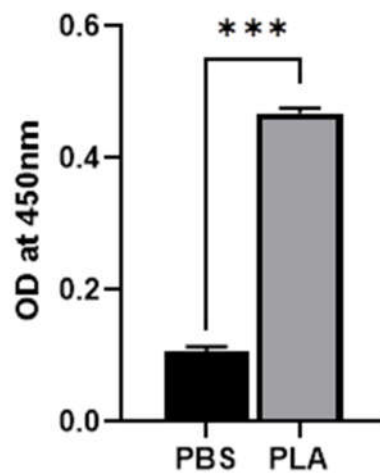


Figure S1. Generation of anti-PLA antibodies in hamsters immunized with LAV-Alum-PLA. PLA-specific total IgG antibody levels in the serum (1:10,000 dilution) of the immunized animals collected on the 35th day were measured by ELISA. The symbol *** represent p-value ≤ 0.001 .

Supplementary tables

Table. S1: The survival data of immunized animals following infection with a virulent strain of *Leptospira* for 28 days

Group	Survival			
	Experiment 1	Experiment 2	Experiment 3	Experiment 4
PBS	0/6	0/6	0/6	0/6
LAV-Alum	2/6	4/6	3/6	3/6
LAV-MPLA-Alum	4/6	3/6	4/6	4/6
LAV-PLA-Alum	4/4	5/6	6/6	6/6
HKL	6/6	6/6	5/6	6/6

Table. S2: Histopathological scores of different organs in hamsters following infection with virulent *Leptospira*

Group	Pathology score											
	Experiment 1			Experiment 2			Experiment 3			Experiment 4		
	Liver	Lung	Kidney	Liver	Lung	Kidney	Liver	Lung	Kidney	Liver	Lung	Kidney
PBS	3,2,2,3,1,2	3,2,2,3,1,2	3,3,2,3,3,3	3,2,3,3,2,3	3,2,2,3,3,2	3,3,1,2,3,2	1,3,3,2,2,3	3,3,2,3,2,3	3,2,3,2,2,3	3,3,2,3,2,2	3,3,2,2,2,3	3,2,3,3,2,3
LAV-Alum	2,1,3,1,2,1	2,1,3,1,2,1	2,2,3,2,3,2	1,2,3,2,2,3	1,2,2,3,1,2	1,1,2,2,3,1	2,1,3,2,2,2	2,2,3,3,2,1	3,2,2,1,2,3	3,1,2,3,2,2	3,1,2,1,2,3	1,2,3,1,2,2
LAV-MPLA-Alum	1,0,1,0,2,0	1,0,1,0,2,0	0,1,0,2,2,1	1,1,0,1,2,1	1,1,0,0,2,1	1,2,1,1,2,1	2,1,1,1,2,2	2,1,1,2,2,1	1,1,2,1,2,2	1,2,2,1,2,1	2,1,1,1,2,2	1,1,2,2,2,1
LAV-PLA-Alum	1,0,1,0	0,0,1,0	0,1,1,0	1,0,0,1,1,2	0,1,0,0,0,1	0,1,0,1,0,0	0,1,0,1,0,0	0,1,1,0,0,0	0,0,0,1,0,0	0,1,1,0,0,0	0,1,0,1,1,0	0,1,1,0,0,0
HKL	0,0,0,0,1,0	0,0,0,0,1,0	0,1,0,0,0,1	0,0,1,0,1,0	0,0,1,1,0,0	1,0,0,0,0,0	0,1,0,0,1,0	0,0,0,1,0,0	0,1,1,0,0,1	0,1,1,0,0,0	1,0,0,0,1,0	0,1,0,1,0,0

Scores-

- 3 - Severe lesions
- 2 - Moderate lesions
- 1 - Mild lesions
- 0 - Normal

Table. S3: Primers used for qRT-PCR analysis in the study

Gene name	Primer	Sequence (5'→3')
<i>Beta-actin</i>	F	CACCCACACTGTGCCCATCTACGA
	R	GGATGCCACAGGATTCCATACCCA
ccl2	F	ACGTGTTGGCTCAGCCAGA
	R	ACTACAGCTTCCTTTGGGACACC
ccl3	F	ACTGCCTGCTGCTTCTCCTACA
	R	AGGAAAATGACACCTGGCTGG
ccl5	F	AGATCTCTGCAGCTGCCCTCA
	R	GGAGCACTTGCTGCTGGTGTAG
ccl8	F	CTTTGCCTGCTGCTCATAG
	R	GCACTGGATATTGTTGATTCTC
ccl10	F	TACTGCTGGCTCACCTC
	R	ATCTGTCTTGTGAAACCC
ccl12	F	GCTACCACCATCAGTCCTC
	R	CTGGCTGCTTGTGATTCTC
ccr5	F	ACACTCAGTATCATTTCTGG
	R	GGATCAGGCTCAAGATGACC
//6	F	TGGAGTCACAGAAGGAGTGGCTAAG
	R	TCTGACCACAGTGAGGAATGTCCAC
tnf-a	F	ATAGCTCCCAGAAAAGCAAGC
	R	CACCCCGAAGTTCAGTAGACA
ifn-g	F	ACTCAAGTGGCATAGATGTGGAAG
	R	GACGCTTATGTTGTTGCTGATGG
il-17	F	TCCAGAAGGCCCTCAGACTA
	R	AGCATCTTCTCGACCCTGAA
il-1b	F	GCCTTGGGCCTCAAAGGAAAAGAATC
	R	GGAAGACACAGATTCCATGGTGAAG
<i>Mip1a</i>	F	CCCAGCCAGGTGTCATTTTCC
	R	GCATTCAGTTCCAGGTCAGTG
cxcl10	F	CATGGTCCTGAGACAAAAGT
	R	TGATGACACAAGTTCTTCCA
il10	F	GCCAGAGCCACATGCTCCTA
	R	GATAAGGCTTGGCAACCCAAGTAA
il5	F	TGAGGCTTCCTGTCCCTACTCATAA
	R	TTGGAATAGCATTTCACAGTACCC
cox2	F	TCTGGAACATTGTGAACAACATC
	R	AAGCTCCTTATTTCCCTTCACAC
tlr2	F	CTCCTGAAGCTGTTGCGTTAC
	R	GCTCCCTTACAGGCTGAGTTC
tlr4	F	TCGCCTTCTTAGCAGAAACAC
	R	GCCTTAGCCTCTTCTCCTTC
foxp3	F	GAGAGGCAGAGGACACTCAATG
	R	GCTCAGGTTGTGGCGGATG
16s rRNA	F	TAAAGGCTCACCAAGGCGAC
	R	TTAGCCGGTGCTTTAGGCAG
Lip132	F	AAGCATTACCGCTTGTGGTG
	R	GAACTCCCATTTTCAGCGATT
IFN-g	F	GGCCATCCAGAGGAGCATAG
	R	TTTCTCCATGCTGCTGTTGAA
IL-4	F	CCACGGAGAAAGACCTCATCTG
	R	GGGTCACCTCATGTTGGAAATAAA