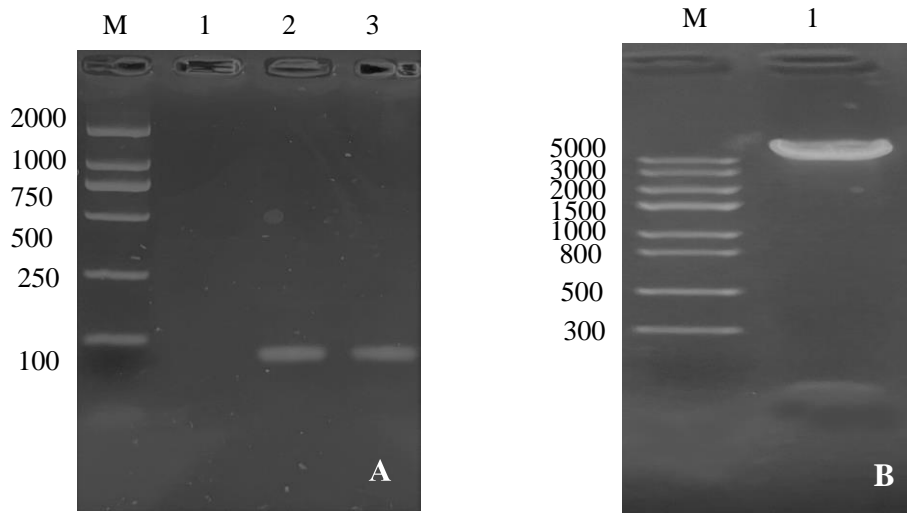


Appendix 1 Screening and identification of LM- $\Delta rli82$ deletion strain by PCR:

Standard DNA marker DL-2000 (2000, 1000, 750, 500, 250, 100 bp);

1: Blank control; 2. Amplified products of LM EGD-e by PCR;

3-4: Screening and identification of LM- $\Delta rli82$ by PCR.



Appendix 2 Screening and identification of LM- $\Delta rli82/rli82$ complementation strain(A) M:

DNA marker DL-2000 (2000, 1000, 750, 500, 250, 100 bp);

1: Negative control; 2-3. Screening of LM- $\Delta rli82/rli82$ by PCR;

(B) M: Standard DNA marker DL-5000 (5000, 3000, 2000, 1500, 1000, 800, 500, 300 bp);

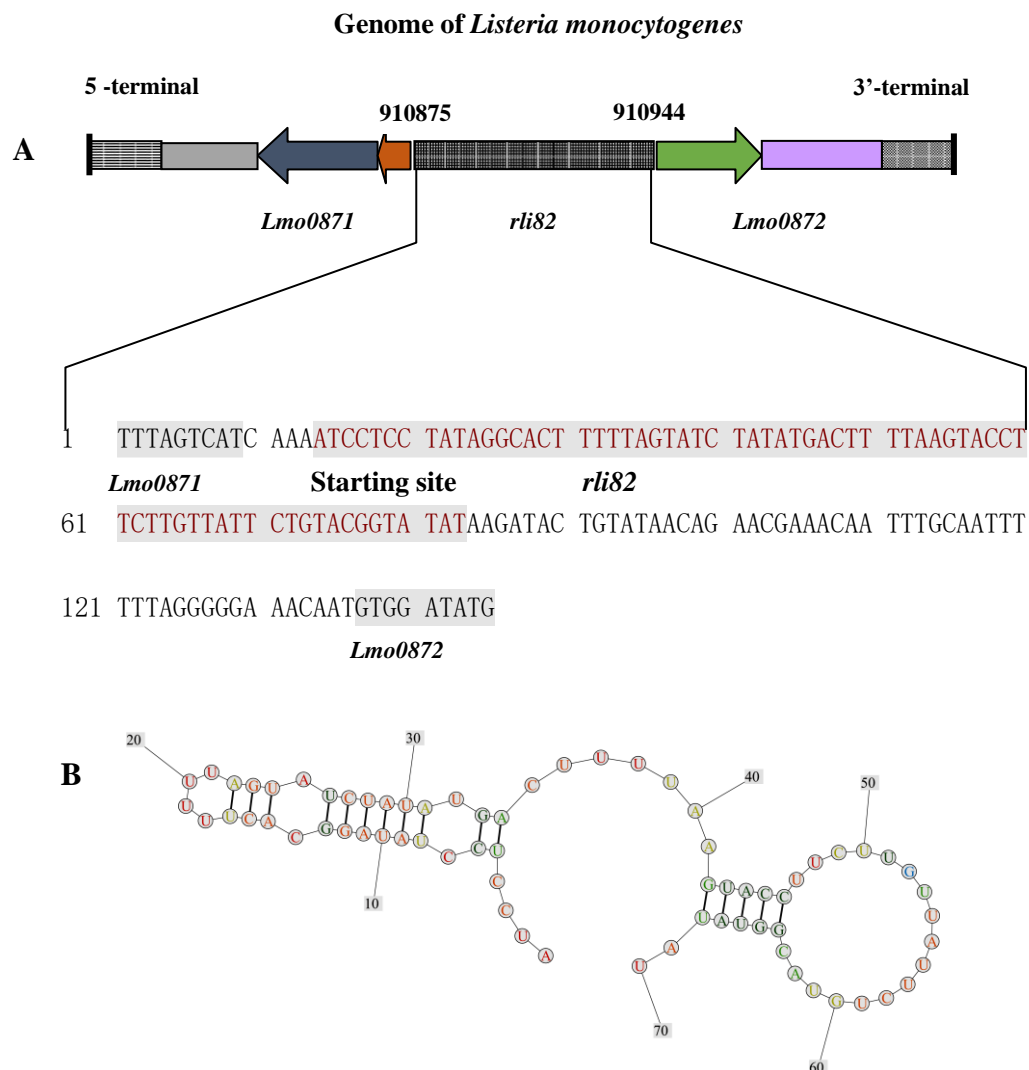
1: Identification of LM- $\Delta rli82/rli82$ by double restriction digestion.

LM-EGD-e	TGCTGTCTTA CCAGTAGGCT CACCAGAAGA TGCTGCTATT GAATTAATAA GAGCCGTAGA AGAACTAGGT TTCAAAGGCG CACTTGTGAA AGGGCAGTTT
LM- Δ rli82	TGCTGTCTTA CCAGTAGGCT CACCAGAAGA TGCTGCTATT GAATTAATAA GAGCCGTAGA AGAACTAGGT TTCAAAGGCG CACTTGTGAA AGGGCAGTTT
LM-EGD-e	GAAAAATAAT ATTTTGATAA TAGCTTTTAT TATCCGATTT TCGAAATGGC AGAAAAACTA GATGTACCGA TTTCGTTCCA TCCATCGTTT ATCCCAGAAA
LM- Δ rli82	GAAAAATAAT ATTTTGATAA TAGCTTTTAT TATCCGATTT TCGAAATGGC AGAAAAACTA GATGTACCGA TTTCGTTCCA TCCATCGTTT ATCCCAGAAA
LM-EGD-e	CTATTACAGA ACAATATTTT GCCAGTGATG CTGGTCTGA TGTAGTCACG GGGGTATTTT CATCTGCTGG TTTGGCTGG CATATGGATG TGGGTATTCA
LM- Δ rli82	CTATTACAGA ACAATATTTT GCCAGTGATG CTGGTCTGA TGTAGTCACG GGGGTATTTT CATCTGCTGG TTTGGCTGG CATATGGATG TGGGTATTCA
LM-EGD-e	AGTCGTGCGG ATGATTCTTT CGGGTATTTT TGATAAATTA CCAAAATTTAA AAATCATTAC AGGGCATTTA GGTGAAATGG TGCCAATGTT TTTAGAAAAGA
LM- Δ rli82	AGTCGTGCGG ATGATTCTTT CGGGTATTTT TGATAAATTA CCAAAATTTAA AAATCATTAC AGGGCATTTA GGTGAAATGG TGCCAATGTT TTTAGAAAAGA
LM-EGD-e	ATGGACGATA CACTCGGTCA CTGGACAACG CTGGAACACA AAATTTCTGA TTATTACCGG ACAAATGTGT ACATTACACC AAGTGGTTTA TTATATCGAA
LM- Δ rli82	ATGGACGATA CACTCGGTCA CTGGACAACG CTGGAACACA AAATTTCTGA TTATTACCGG ACAAATGTGT ACATTACACC AAGTGGTTTA TTATATCGAA
LM-EGD-e	ACGAATGGAA ATTTTATTA AATGAATTAG ATGAAAATCA TCTCATTTAT GCGCTAGATT ATCCTTTTGT AAAACCAGAA AATGCTGGAA CTTTCCTAGA
LM- Δ rli82	ACGAATGGAA ATTTTATTA AATGAATTAG ATGAAAATCA TCTCATTTAT GCGCTAGATT ATCCTTTTGT AAAACCAGAA AATGCTGGAA CTTTCCTAGA
LM-EGD-e	TATGCTTGAT TTAACGGATG AAGTGAAAGC AAAAATTGCT CATAAAAACG CAGAGAAATT ATTACATTTA TAAAAGGTGG AAITCAAAT GACTTTATCA
LM- Δ rli82	TATGCTTGAT TTAACGGATG AAGTGAAAGC AAAAATTGCT CATAAAAACG CAGAGAAATT ATTACATTTA TAAAAGGTGG AAITCAAAT GACTTTATCA
LM-EGD-e	AAAGAACAAA TCAAAGCAAC GAAAAGTGAA TTTGCGGAGA ATTTGGCGCT TCGGATTTA ACGATTGTCG AAGTAGCAAA AGAACTAAAT ACAAGCCAAG
LM- Δ rli82	AAAGAACAAA TCAAAGCAAC GAAAAGTGAA TTTGCGGAGA ATTTGGCGCT TCGGATTTA ACGATTGTCG AAGTAGCAAA AGAACTAAAT ACAAGCCAAG
LM-EGD-e	TAAAAATAGA ACGGATTTT AATCTAAAGC AACGTTCTTT AAATGATGGT TGGATTTGC GGAATTACTT ACTAGAAAAG GTTACGGAAG TAGGGAAGAC
LM- Δ rli82	TAAAAATAGA ACGGATTTT AATCTAAAGC AACGTTCTTT AAATGATGGT TGGATTTGC GGAATTACTT ACTAGAAAAG GTTACGGAAG TAGGGAAGAC
LM-EGD-e	ACCAGTCCG TTTACAGCGC TCAGTGGGGA TTATCATGGA TATTGGTTTT TAGATGGAGA AGAAATTGAT TCAGGGATAT TAAGTAAAGG AAATCATTAA
LM- Δ rli82	ACCAGTCCG TTTACAGCGC TCAGTGGGGA TTATCATGGA TATTGGTTTT TAGATGGAGA AGAAATTGAT TCAGGGATAT TAAGTAAAGG AAATCATTAA
LM-EGD-e	AAATAGCCAC CCAAGAGGTG GTTATTTTTC TATTAATCTC GTTTCACAA AACAATATCC TCATTCTTCG TCAGCAATAA ATCTACATGA TTCTCGCCCC
LM- Δ rli82	AAATAGCCAC CCAAGAGGTG GTTATTTTTC TATTAATCTC GTTTCACAA AACAATATCC TCATTCTTCG TCAGCAATAA ATCTACATGA TTCTCGCCCC
LM-EGD-e	ATAAGCAAAG TTTGTTCAAA ATCTCCGACA ACGATTGCC GTATTGCTC AAAGAATACT CCACTTTTGG TGGAAATTGC TCGTAAACTT TACGGATAAT
LM- Δ rli82	ATAAGCAAAG TTTGTTCAAA ATCTCCGACA ACGATTGCC GTATTGCTC AAAGAATACT CCACTTTTGG TGGAAATTGC TCGTAAACTT TACGGATAAT
LM-EGD-e	AACGCCGAT TTTTCGAGCT CGCGCAATTG TTGTGTGAGC ATTTTTGTG TGATGTTGGG GATGAGTCGT TTTAATTCGC CAGTTCGTTT TTTGCCTTCG
LM- Δ rli82	AACGCCGAT TTTTCGAGCT CGCGCAATTG TTGTGTGAGC ATTTTTGTG TGATGTTGGG GATGAGTCGT TTTAATTCGC CAGTTCGTTT TTTGCCTTCG
LM-EGD-e	CGTAAATGGC AAAGGATGAC TGGTTTCCAT TTGCCGCCAA TAACCTCTAG TGTAGCTTCG ACGCCGATAT TATATACTTT AGTCATCAAA ATCCTCCTAT
LM- Δ rli82	CGTAAATGGC AAAGGATGAC TGGTTTCCAT TTGCCGCCAA TAACCTCTAG TGTAGCTTCG ACGCCGATAT TATATACTTT AGTCATCAAA -----
LM-EGD-e	AGGCACTTTT TAGTATCTAT ATGACTTTTA AGTACCTTCT TGTTATTCTG TACGGTATAT AAGATACTGT ATAACAGAAC GAAACAATTT GCAATTTTTT
LM- Δ rli82	----- AAGATACTGT ATAACAGAAC GAAACAATTT GCAATTTTTT
LM-EGD-e	AGGGGGAAAC AATGTGGATA TGAAAAAAGT GAATCCTAAT TTGACACTTT TAGCGCTAGC AATTAGTGC TTTGGGATTG GTTCAACAGA ATTTATTAGT
LM- Δ rli82	AGGGGGAAAC AATGTGGATA TGAAAAAAGT GAATCCTAAT TTGACACTTT TAGCGCTAGC AATTAGTGC TTTGGGATTG GTTCAACAGA ATTTATTAGT
LM-EGD-e	GTGGGGCTAC TTCCAATGAT TTCTT
LM- Δ rli82	GTGGGGCTAC TTCCAATGAT TTCTT

Appendix 3 Comparison of sequencing result of amplified products of LM- Δ rli82 with the corresponding sequence of LM EGD-e

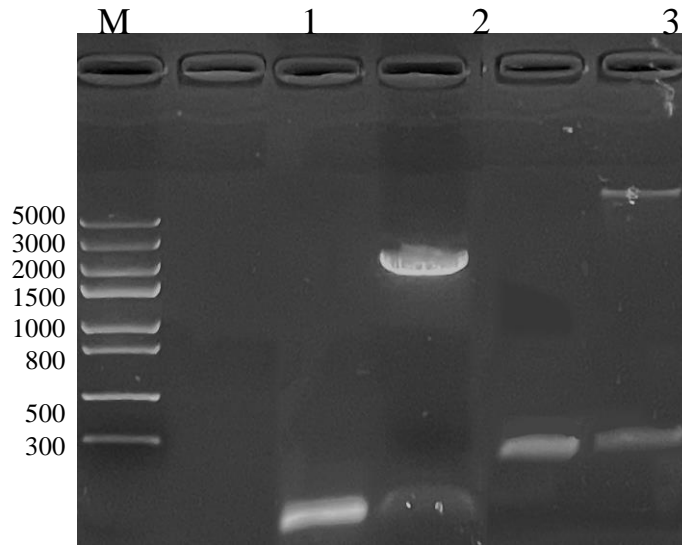
Appendix 4 Determination of LD₅₀ of different strains of LM in mice

Strain	Dilution gradient					LD ₅₀ (CFU/mL)
	10 ⁹	10 ⁸	10 ⁷	10 ⁶	10 ⁵	
LM EGD-e	6/6	6/6	4/6	4/6	0/6	10 ^{5.56}
LM- $\Delta rli82$	6/6	6/6	2/6	1/6	0/6	10 ^{7.00}
LM- $\Delta rli82/rli82$	6/6	6/6	3/6	3/6	0/6	10 ^{5.95}



Appendix 5 The genomic location and second structure of *rli82* gene of *Listeria monocytogenes*

A: The genomic location of *rli82* gene; B: The second structure of sRNA *rli82*.



Appendix 6 Construction and identification of recombinant plasmids pUT18C-*rli82* and pMR-lacZ-*flaA*

M: Standard DNA marker DL-5000 (5000, 3000, 2000, 1500, 1000, 800, 500, 300 bp);

1: Negative control; 2: pUT18C-*rli82* plasmid; 3: Identification of pUT18C-*rli82* by restriction enzyme digestion; 4: Identification of pMR-lacZ-*flaA* by PCR; 5: Identification of pMR-lacZ-*flaA* by restriction enzyme digestion.