

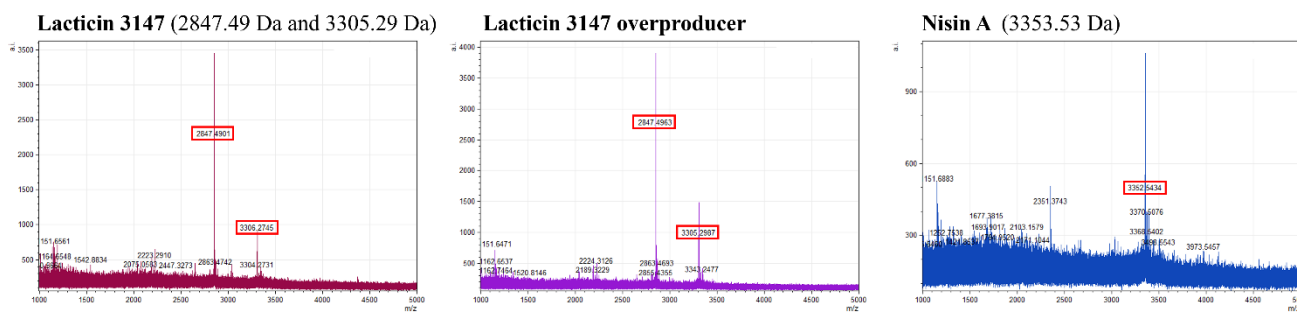
Supplementary Material

Supplementary Tables

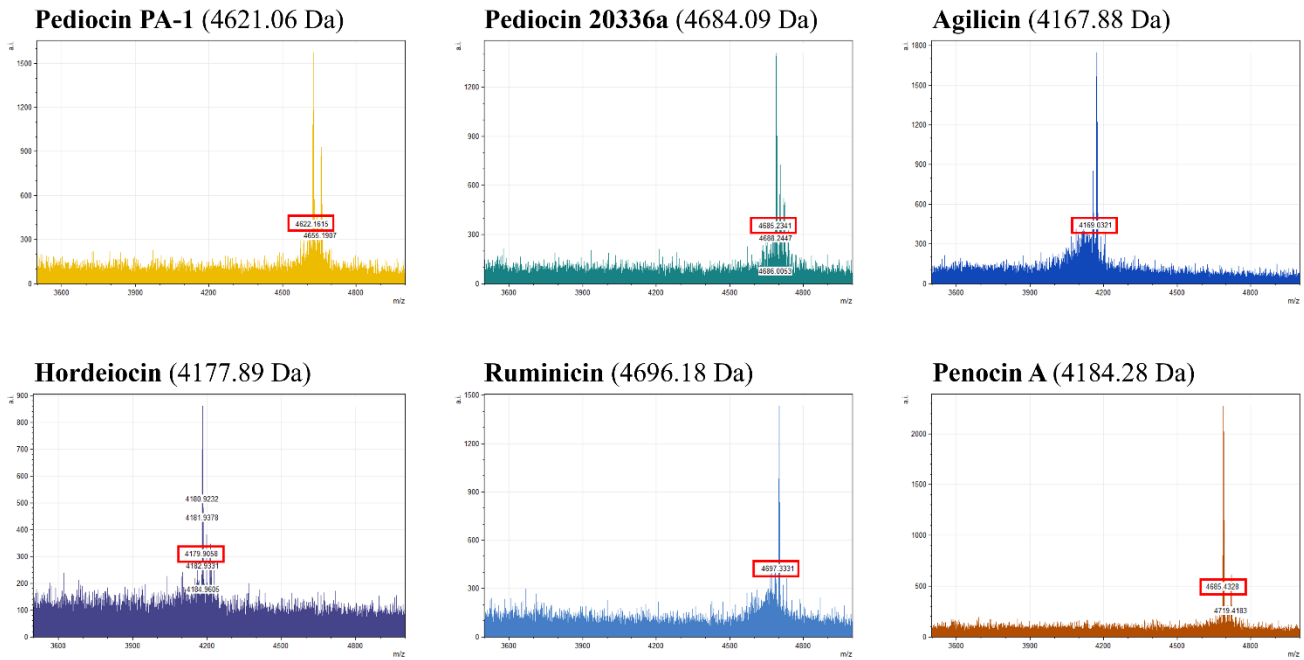
Supplementary Table 1. Genome size (bp) of SIHUMI member strains and *L. lactis* MG1363. The mass of each genome was calculated multiplying the genome size by 1.096×10^{-12} (average Molecular Weight of 1 bp in ng).

Strain	Genome size (bp)	Genome Mass (ng)
<i>E. faecalis</i> OG1RF	2739625	3.00×10^{-6}
<i>E. coli</i> LF82	4773108	3.00×10^{-6}
<i>R. gnavus</i> ATCC 29149	3549191	3.89×10^{-6}
<i>F. prausnitzii</i> A2-165	3102523	3.40×10^{-6}
<i>P. vulgatus</i> DSM1447	4773108	5.23×10^{-6}
<i>B. longum</i> ATCC15707	2385164	2.61×10^{-6}
<i>L. plantarum</i> WCFS1	3308274	3.63×10^{-6}
<i>L. lactis</i> MG1363	2529478	2.77×10^{-6}

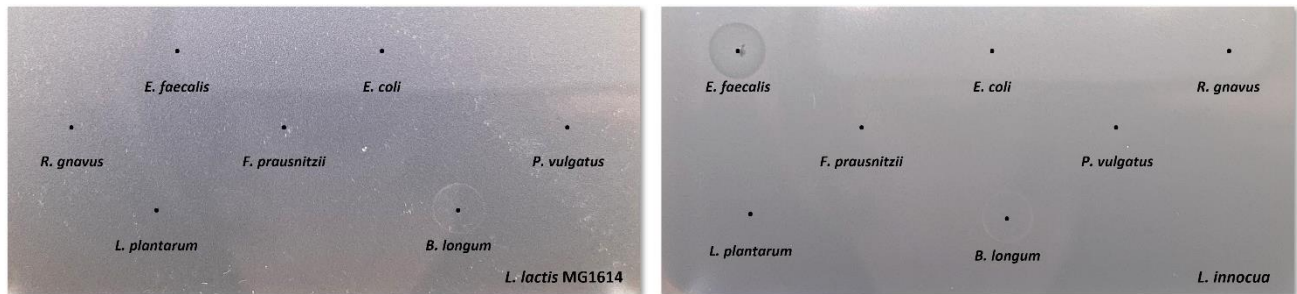
Supplementary Figures



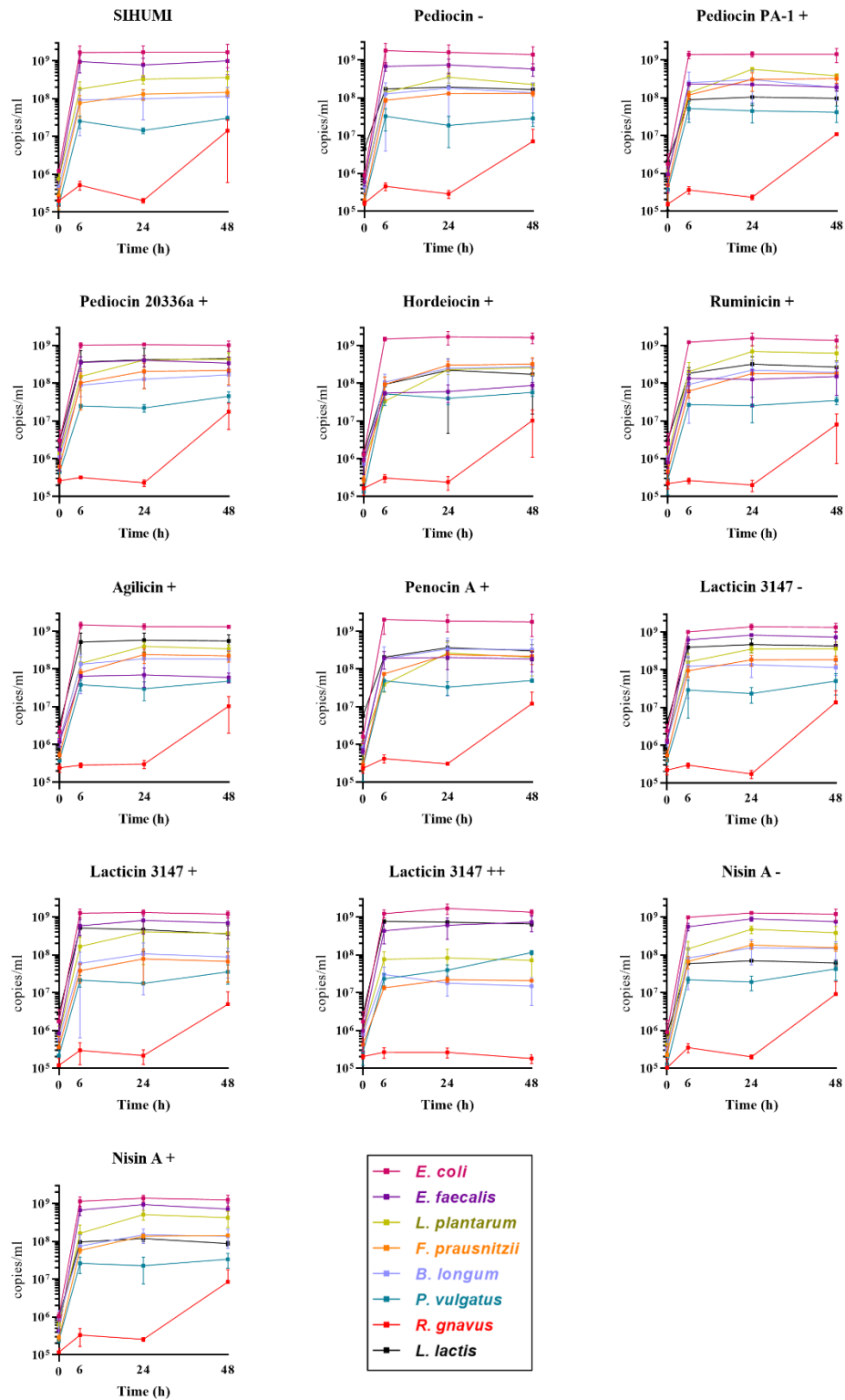
Supplementary Figure 1. Colony Mass Spectrometry results of the lantibiotic-producing strains. Each graph indicates the bacteriocin and the predicted mass in brackets. The measured mass in Daltons is highlighted in red. The peaks corresponding to each bacteriocin were absent in the isogenic non-producing (Bac-) strains (data not shown).



Supplementary Figure 2. Mass Spectrometry results of cell-free supernatants of the pediocin-producing strains after a two-step purification procedure. Each graph indicates the bacteriocin and the predicted mass in brackets. Predicted masses were adjusted for the presence of disulphide bonds. The measured mass in Daltons is highlighted in red. The peaks corresponding to each bacteriocin were absent in the isogenic non-producing (Bac-) strain (data not shown).



Supplementary Figure 3. Antimicrobial activity of culture supernatants from SIHUMI strains by agar spot diffusion method against the indicator organism *L. lactis* MG1614 (left) and *L. innocua* (Right). The black dots indicate where each supernatant was spotted.



Supplementary Figure 4. Genome copies/ml over time (0, 6, 24 and 48 h) of members of SIHUMI consortium in LYHBHI after inoculation with Bac⁺ and Bac⁻ *L. lactis* strains at time 0. Each graph indicates the bacteriocin produced. Each time point is represented as a mean with standard deviation of 4 replicates.

Producer	0h	6h	24h	48h
No strain				
Pediocin-				
Pediocin PA1+				
Pediocin 20336a+				
Ruminicin+				
Hordeiocin+				
Agilicin+				
Penocin A+				

L. innocua

Producer	0h	6h	24h	48h
No strain				
Lacticin 3147-				
Lacticin 3147+				
Lacticin 3147++ (overproducer)				
Nisin A-				
Nisin A+				

L. lactis MG1614

Supplementary Figure 5. Spot assays of SIHUMI culture supernatants at different time points (0, 6, 24 and 48 h) against *L. innocua* (for pediocin-like bacteriocins) and *L. lactis* MG1614 (for lantibiotics).