

Table S1. Primers and PCR products used in this study.

Primer or PCR product	Nucleotide sequence (5'–3') or description ^a	PCR product amplified
Primer		
GAR-F	CATAGAGCTCTGTAAG GAGG	A, B, C, D
GARAIM-R	AAGTTAAGCTTGTATTACATAG	A, D, E
GARQIM-R	GTAAAGCTTGTATCAGTCTAAG	B, C
MGPJ-F	TGGATTTTTGTGAGCTTGA	
MGPJ-R	TTTGTGCTAGTACCGGTTG	
GARF-BSPHI	ATCCACTCATCATGAAAAAAAAAGATTATCTC	E
NZA1-F	CCCTGACGAAAGTCGACGGCAATAGTTACC	F, J, K
NZA2-R	CATGGTGAGTGCCTCCTTATAATTTATTTTG	F
NZC1-F	CTTTCTTTGAACCAAAATTAGAAAACCAAG	G
NZC2-R	AATAAGGGTAACTATTGCCGTCGACTTTTCG	G, J, K
QB1-F	CAAAATAAATTATAAGGAGGCACTCACCATGAAAAAAAAAGATTATCTCAG	H
QB2-R	CTTGGTTTTCTAATTTTGGTTCAAAGAAAGCTTGTATCAGTCTAAGTAAC	H
QAB1-F	CAAAATAAATTATAAGGAGGCACTCACCATGAAAAAAAAAATCATTTCAG	I
QAB2-R	CTTGGTTTTCTAATTTTGGTTCAAAGAAAGCTTGTATTACATTGAAAATG	I
NZPJ-F	TGTCGATAACGCGAGCATAA	
NZPJ-R	CAAAGCAACACGTGCTGTAA	
PCR product		
A	544-bp <i>SacI/HindIII</i> fragment containing the P ₃₂ ribosome binding site and the SP _{usp45} fused to mature <i>lgnA</i> and <i>lgnI</i>	
B	617-bp <i>SacI/HindIII</i> fragment containing the P ₃₂ ribosome binding site and the SP _{usp45} fused to mature <i>garQ</i> and <i>garI</i>	
C	1,139-bp <i>SacI/HindIII</i> fragment containing the P ₃₂ ribosome binding site and the SP _{usp45} fused to mature <i>lgnA</i> and <i>lgnI</i> , and mature <i>garQ</i> and <i>garI</i>	
D	1,139-bp <i>SacI/HindIII</i> fragment containing the P ₃₂ ribosome binding site and the SP _{usp45} fused to mature <i>garQ</i> and <i>garI</i> , and mature <i>lgnA</i> and <i>lgnI</i>	
E	524-bp <i>BspHI/HindIII</i> fragment containing the SP _{usp45} fused to mature <i>lgnA</i> and <i>lgnI</i>	
F	1,254-bp fragment of pNZ8048c (overlaps PCR product G)	
G	2,089-bp fragment of pNZ8048c (overlaps PCR product F)	
H	636-bp fragment containing the SP _{usp45} fused to mature <i>garQ</i> and <i>garI</i> (overlaps PCR products F and G)	
I	1,158-bp fragment containing the SP _{usp45} fused to mature <i>garQ</i> and <i>garI</i> , and mature <i>lgnA</i> and <i>lgnI</i> (overlaps PCR products F and G)	
J	3,888-bp circular fragment (corresponding to plasmid pNJFQI)	
K	4,410-bp circular fragment (corresponding to plasmid pNJFQIAI)	

^a Cleavage sites for restriction enzymes are italicized; P₃₂ ribosome binding site is shown in bold.

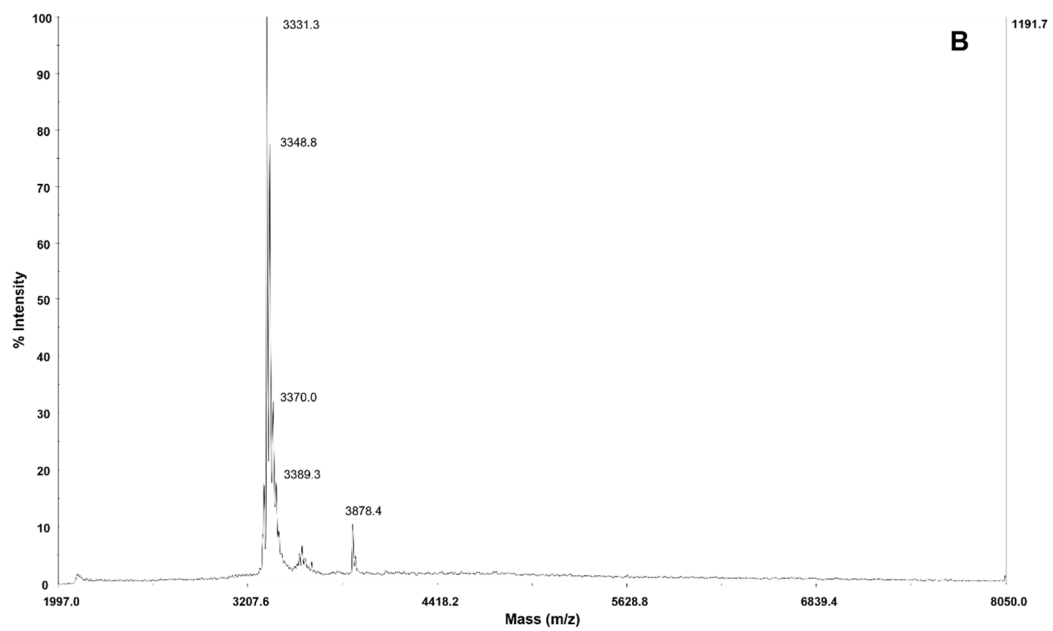
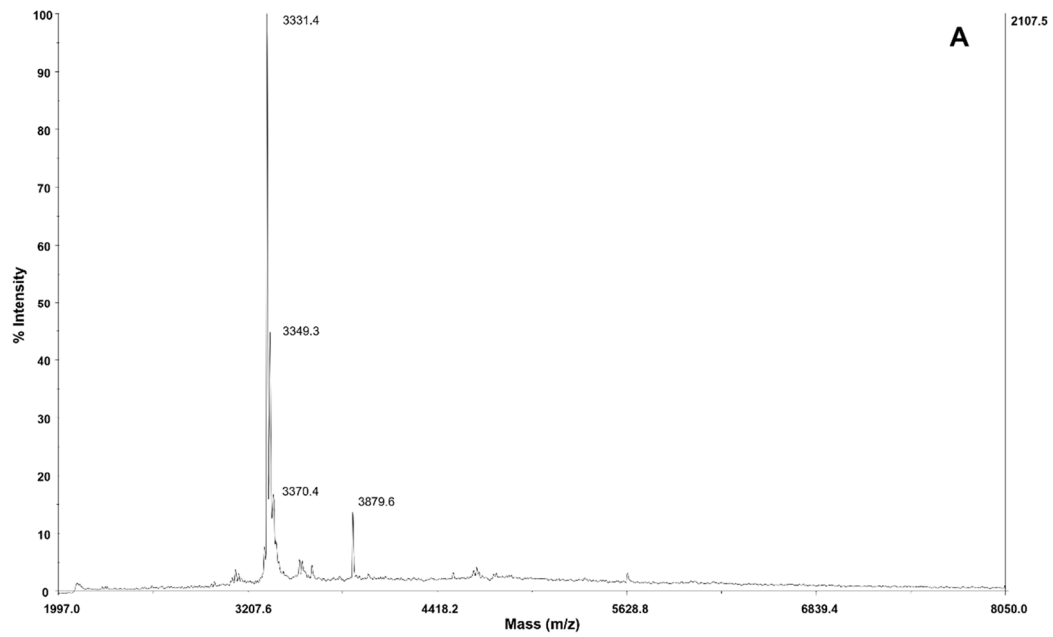


Figure S1. MALDI-TOF MS analysis of purified NisZ from *Lactococcus lactis* subsp. *cremoris* WA2-67 (pJFQI) (A), and *Lactococcus lactis* subsp. *cremoris* WA2-67 (pJFQIAI) (B). Numbers indicate the molecular mass in daltons of major peptide fragments.