

Understanding the mechanism of action of NAI-112, a lanthipeptide with potent antinociceptive activity

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Supplementary results

1. Figure S1;
2. Figure S2;
3. Figure S3;
4. Table S1.

1. Figure S1.

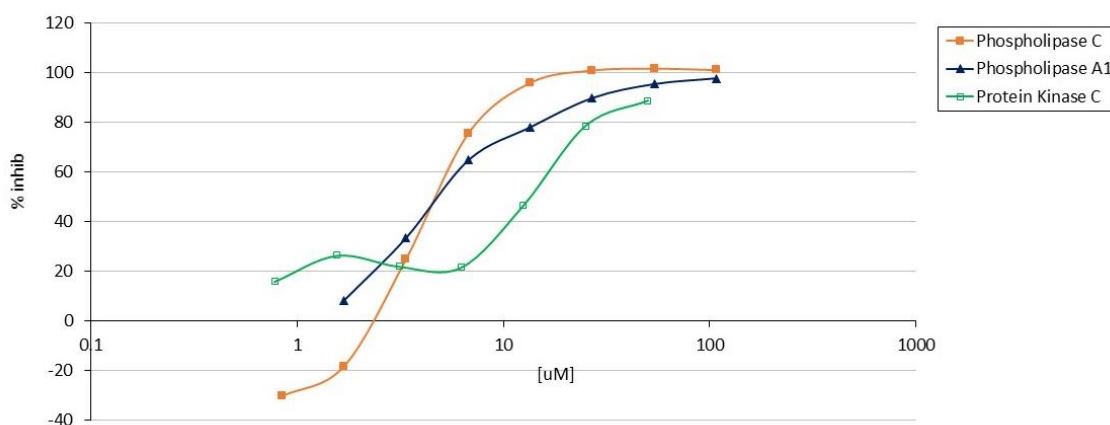
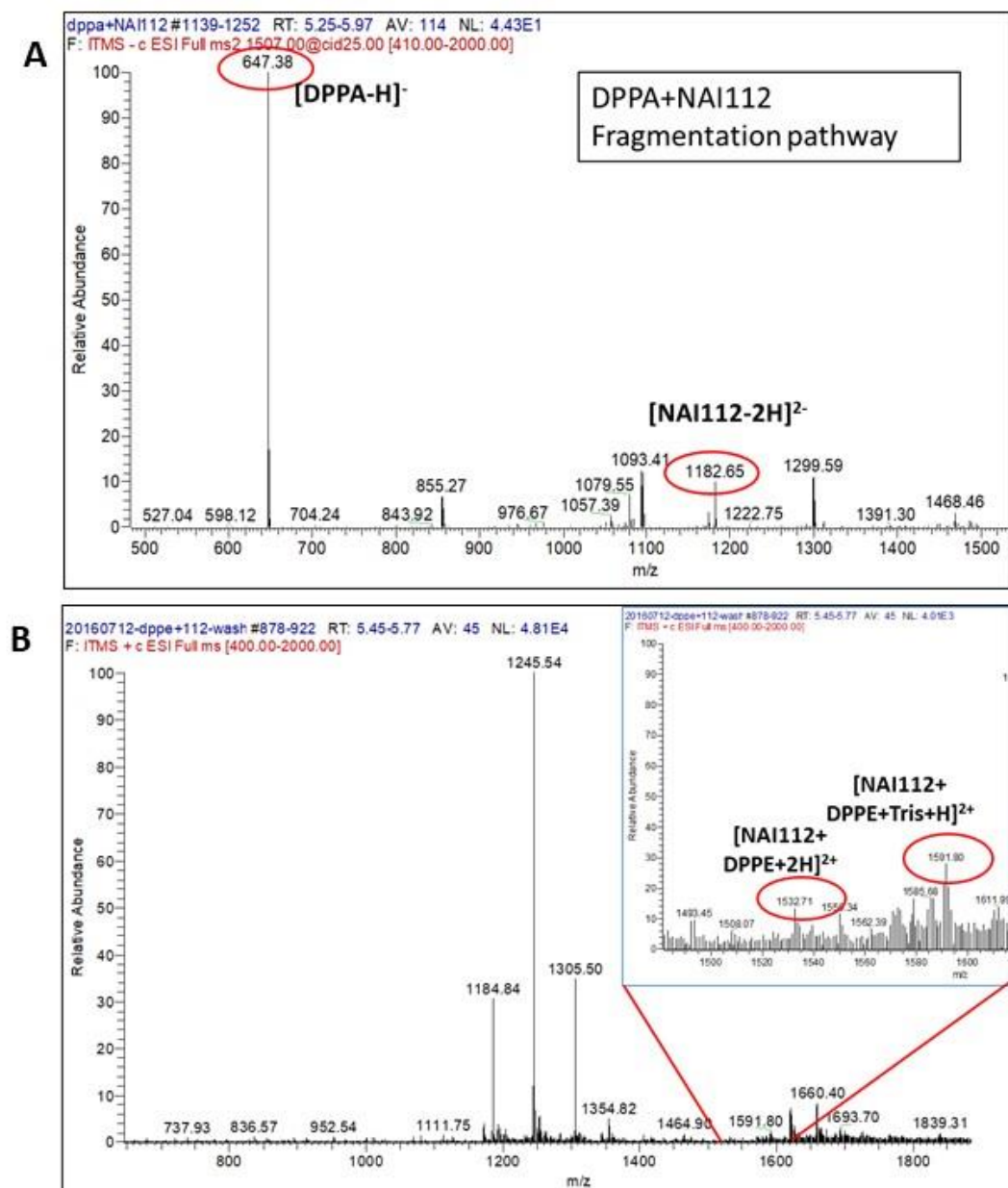
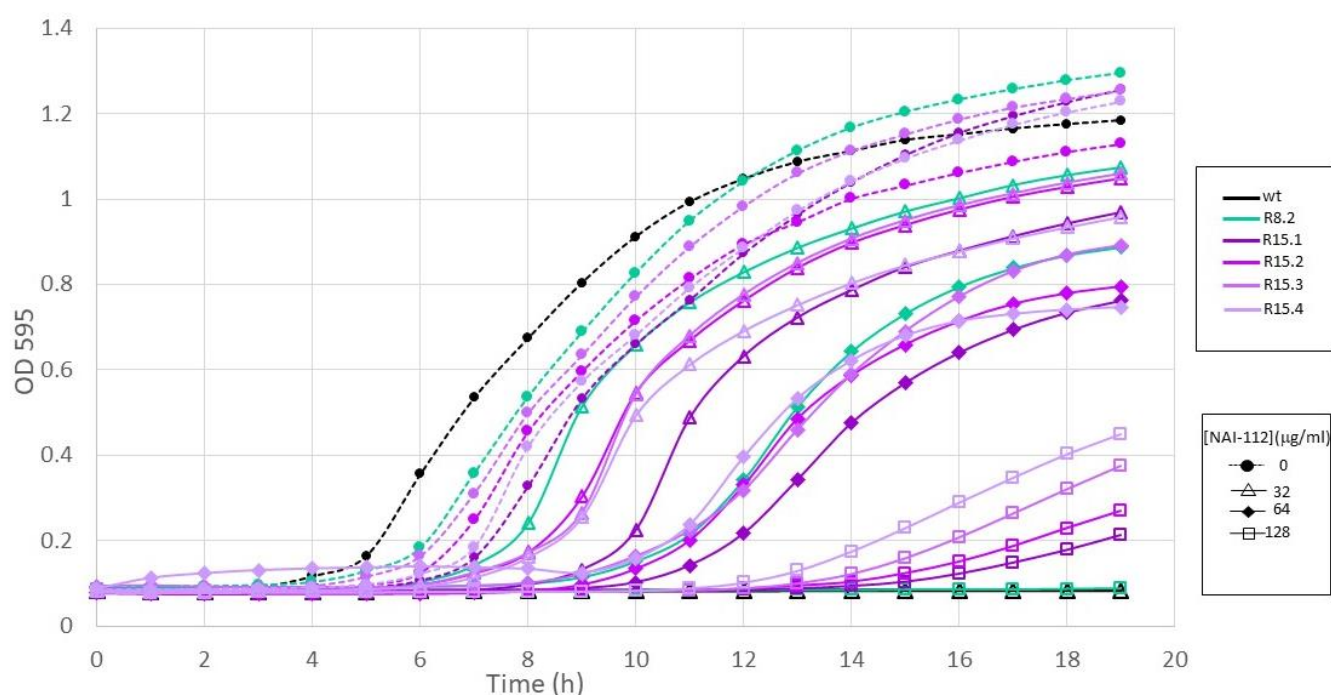


Figure S1. Inhibition by NAI-112 of Protein Kinase C and Phospholipases A1 and C.

2. Figure S2.



3. Figure S3.

**Figure S3.** Growth of *S. aureus* ATCC6538P (wt), and of the R8.2 and R15.1-4 mutant strains in the presence of NAI-112.

4. Table S1.

Table S1. Mutations observed in only one mutant strain resistant to NAI-112.

Mutant strain	Genome position (nt) ^a	CDS (locus) ^a	Type of mutation	Nucleotide change	Aminoacid change	Function
R8.1	1650902	SAFDA_1522	DEL	CATCTCTCACTG ^b	del 108-111 (RDAV)	hypothetical protein
	1859248	SAFDA_1703 to SAFDA_1704	DEL	-A	non-coding	serine protease SplA – hypothetical protein
R15.3	731151	SAFDA_0655 to SAFDA_0656	SNP	G to A	non-coding	hypothetical protein – queuosine biosynthesis protein QueE
	1907656		SNP	G to A		
	1907657	SAFDA_t0034	SNP	C to G		tRNA-Ser
	1907666		SNP	G to C		
	2528678	SAFDA_2348	SNP	C to T ^b	Arg410His	surface protein G1
	2612200	SAFDA_2421	SNP	T to C ^b	Glu503Gly	acyltransferase

R15.4	261100	SAFDA_0212	SNP	G to T ^b	non-coding	cell wall biosynthesis protein
	261127	to SAFDA_0213	SNP	G to A ^b		ScdA – LytS (two-component sensor histidine kinase)
	984361	SAFDA_0899	SNP	A to G ^b	Lys45Glu	hypothetical protein
	1923796	SAFDA_1757	SNP	G to A ^b	Gly10Glu	hypothetical protein
	2535962	SAFDA_2353	SNP	G to T ^b	Thr26Asn	hypothetical protein
R15.5	2287402	SAFDA_2121 to SAFDA_2122	SNP	T to C ^b	non-coding	between truncated transposases
R15.3	512392	SAFDA_0459	SNP	C to A	non-coding	lysyl-tRNA
	512395	to	SNP	A to T		synthetase – 5S
	512388	SAFDA_r0004	SNP	C to A		ribosomal RNA
R15.3	523914	SAFDA_r0010	SNP	A to G ^b	non-coding	5S ribosomal RNA – GntR family
R15.4	523941	to SAFDA_0460	DEL	-G ^b		transcriptional regulator

^a numbering and annotations are from reference genome (accession number AP014942.1).

^b mutation results in sequence identical to that of reference genome.