

On line material

Supplementary Figures

Figure S1. Synthetic lipopeptide analogs.

(A) List of abbreviation, structural notation and name of fatty acid residues used in this study.

(B) shows the highly conserved structure of bacterial lipoproteins that is shared by all synthetic lipopeptides used in this study. R1 to R3 indicate fatty acids with R1 representing the amide-bound fatty acid, R2 and R3 representing ester-bound fatty acids. The peptide moiety is indicated by R4. Examples are given at the right.

A)

Abbreviation	Structural denotation	Fatty acids
Hex	C ₆ H ₁₂ O ₂	Hexanoic acid
Oct	C ₈ H ₁₆ O ₂	Octanoic acid
Pel	C ₉ H ₁₈ O ₂	Pelargonic/Nonanoic acid
Dec	C ₁₀ H ₂₀ O ₂	Decanoic acid
Dod	C ₁₂ H ₂₄ O ₂	Dodecanoic acid
Myr	C ₁₄ H ₂₈ O ₂	Myristic/Tetradecanoic acid
Pam	C ₁₆ H ₃₂ O ₂	Palmitic/Hexadecanoic acid
Lin	C ₁₈ H ₃₂ O ₂	Linoleic/ Octadeca-9,12E-dienoic acid
Ole	C ₁₈ H ₃₄ O ₂	Oleic/Octadeca-9E-enoic acid

B)

$ \begin{array}{c} R^3-O-CH_2 \\ \\ R^2-O-CH \\ \\ CH_2 \\ \\ S \\ \\ CH_2 \\ \\ R^1-N-C-H \\ \quad \\ H \quad O \\ \quad \quad \quad R^4 \end{array} $	Abbreviation	R ¹	R ²	R ³	R ⁴	
	Pam ₃ C-SK ₄	Pam	Pam	Pam	Pam	SKKKK
	PamOct ₂ C-SK ₄	Pam		Oct	Oct	SKKKK
	MyrPam ₂ C-SK ₄	Myr		Pam	Pam	SKKKK
	Pam ₂ C-SK ₄			Pam	Pam	SKKKK

Figure S2. Expression of TLR1, TLR2 and TLR6 in HEK293 cells.

cDNA from HEK293 cells was analyzed for the expression of TLR1, TLR2, TLR6 and the housekeeping gene GAPDH. TLR1 and TLR6 are expressed, while TLR2 could not be detected.

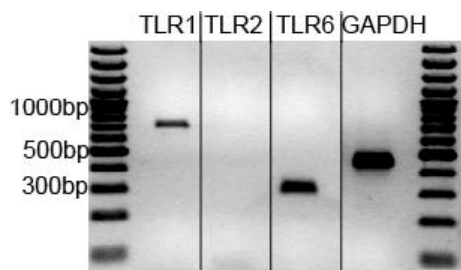


Figure S3. Multiple nucleotide sequence alignment of N-terminus of short and long transcript of boTLR1, huTLR1 and muTLR1.

Sequences for short boTLR1, huTLR1 and muTLR1 were obtained from NCBI GenBank.

Sequence of long form of boTLR1 (boTLR1-fl, full length) starts with an ATG that was found 195 base pairs upstream from the start codon of boTLR1-s. Alignment was performed with ClustalW method. Pattern highlights not identical nucleotides.

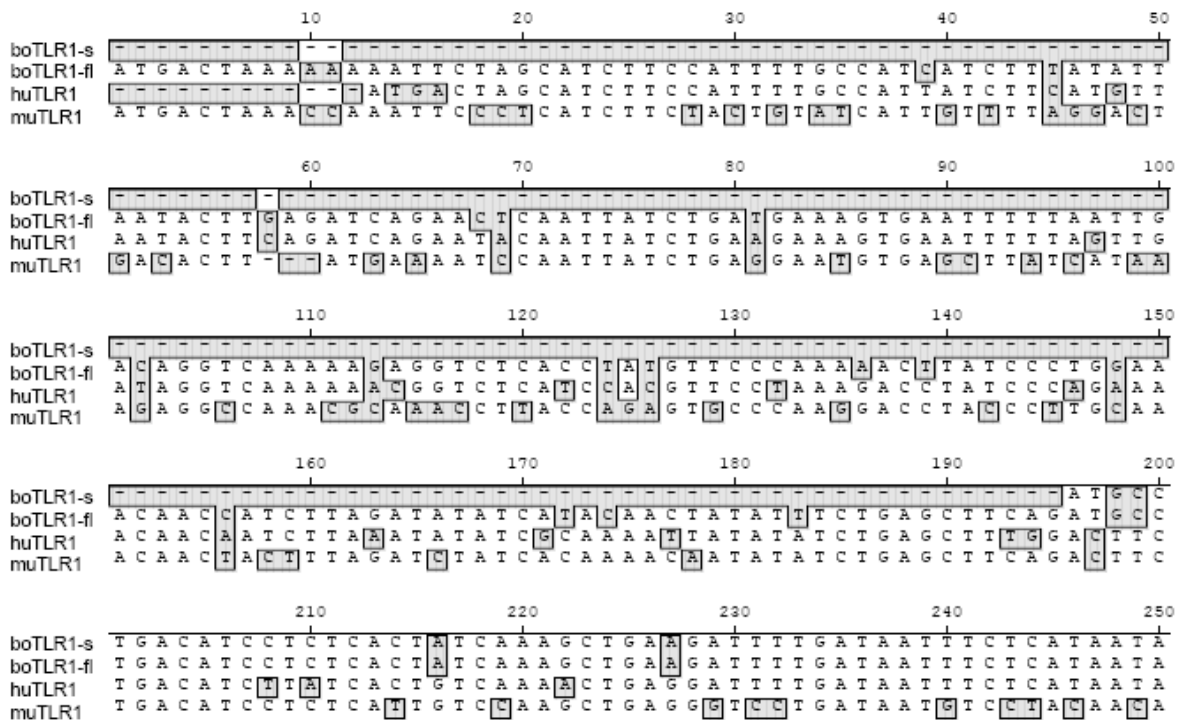


Figure S4. Sequence of full length TLR1.

(A) Nucleotide sequence with ATG of short boTLR1 marked (B) Protein sequence with methionine of short boTLR1 marked.

A)

```

1   A T G A C T A A A A A A A A A T T C T A G C A T C T T C C A T T T T G C C A T C A T C T T T A T A T T
51  A A T A C T T G A G A T C A G A A C T C A A T T A T C T G A T G A A A G T G A A T T T T A A I T G
101 A C A G G T C A A A A A G A G G T C T C A C C T A T G T T C C C A A A A A C T T A T C C C T G G A A
151 A C A A C C A T C T T A G A T A T A T C A T A C A A C T A T A T T T C T G A G C T T C A G A T G C C
201 T G A C A T C C T C T C A C T A T C A A A G C T G A A G A T T T T G A T A A T T T C T C A T A A T A
251 G A A T C C A G T A T C T T G A C T T G A G T G T T T T T A A A T T C A A C C A G G A A C T G G A A
301 T A C T T G G G A T T T G T C C C A C A A C A A T T T T G G A G A A G A T T T C T T G C C A C C C T A C
351 T C T G A A C C C T C A A G C A C T T A G A C C C T C A T T T A A T C C A T T T G A T G C C C T G C
401 C C A T A T G C C A A G A G T T T G G C A C A C A T G T C T C A A C T A G A A T T T C T G G G G T T G
451 A G T G C C A C A C A G T T A C A A A T C C A A T G T G C A G T C A A T C A C T C A T T T T G C A
501 C A T C A G G A A A G T T T T A T T G G T C T T A G G A G A T A C T T A T G G G G A A A G A G A A G
551 A T G C C G A G A G C C T T C A A G A G C C T T A A G A C A C A G A G T C T G C A C A T T G T T T C
601 C C C A C A G G G A A A G G G A A T T C C A T T T T A T T T T G G A C C G T G T C A G T C G G C A C C A C
651 A G T G A G T C T G G A A C T G T C T A A T A T C A A A T G T G T G C T T G A T G A T A A T G G G T
701 T C T T C C A C A A G G T T A T G T C T A T A A A A T A T T G T C A A A T A T G A A C A T C C A G G T T A
751 T C A A A T C T T A C T T T A A A C A A A C A T T G A A A T A A C T T G G A A T T C C T T C T T C A C
801 G A T C T C C A G T T G G T T T G G C G T A C A A A C A T T G A G T A C T T C T C C A T T T T C A A
851 A T G T G A A A C T A C A A G G T T A C C T T G A C T C T A G A G A T T T T G A T T A T T C T G A C
901 A C T T C A C T G A A G G C C T T G T C T A T A C A C A A A G T T G T C C A T G A T G T G T T C A G
951 T C T T C C A C A A G G T T A T G T C T A T A A A A T A T T G T C A A A T A T G A A C A T C C A G C
1001 A T C T C A C A G T G T C T G C T G C A C A C A T G G T C C A C A T G G T C T G C C C A T C C C C A A
1051 A T T A G C C C A T T T C T G T A T T T G A A T T T T T C C A A T A A T C T C T T A A C A G A C A C
1101 A G T T T T C A T A A A C T G T A C A A A T T T G G C T A A A T T T G A A G A C A C T T A T C C T A C
1151 A A A A G A A T C A G T T A A A A G A A A C T T G T A A A C A T A G T T C A T A T G A C C C A G G G A A
1201 A T G A A G T C T C T A C A A C A A C T G G A T G T T A G C C A G A A T T C C C T G A T G T A T G A
1251 T G A A A G T G A A G G A A A T T G C C C T T G G G C C A G A A A T T T A T T A A G T T T A A A T A
1301 T G T C T T C A A A T A T A C T T A C T G A C T C T G T T T T C A G A T G T T T A C C T C C C T C A G
1351 A T C A A G G T T C T T G A T C T T C A C A A A T A A C A G A A T A A G G A G C A T C C C T A A A G A
1401 T G T C A C T G G T C T T A G A A A C T T T G C A A G A A C T C A A C C T T G C T T C C A A T T G C T T
1451 T A G C C C A C C T T C C T G G A T G T G G T A T C T T T A G C A G C C T T T C C A T T C T G A T C
1501 A T T G A C T A T A A C T C A A T T T C C A A T C C C A T C A G C T G A T T T C T T C C A G A G C T G
1551 C C A G A A G A T T A G G T C C C T C A A A G C G G G A A C A A T C C A T T C C A A T G T T C C T
1601 G T G A G C T A A A G A G A C T T C A T C C A A A G T A T A G G C C A A G T A T C A A G T G A C G T G
1651 T A G A G G G G C T G G C C T G A G T C T T A T A A G T G T G A C T A T C C G G G A A A G C T A C A C A
1701 G G G A A C C C C T C T A A A A G G A C T T C C A G G T A T C T G A G C T A T C C T G A A C A C A C A G
1751 C T C T G C T G A T C G T C A C C A T T G T G G T C C C T G G G C T G G T G C T G G C T G T T G C T
1801 G T G A C T G T C C T C T G T A T C T A C C T G G A T C T G C C C T G G T A C C T C A G G A T G G T
1851 G T G T C A G T G G A C C C A G A C C C G G C G C A G G G C C A G G A A T G T A C C C T T G G A A G
1901 A A C T C C A A A G A A C T C T C A A G T T C C A T T G C T T T T A T T T C A T A T A G T G G G C A C
1951 G A T T C T G C C T G G G T G A A G A A T G A A T T A A T A C C T A A C C T A G A A A A A G A A G A
2001 T A T A A G A A A T T T G T C T C C A T G A G A G A A A C T T T G T T G C T G G C A A G A G C A T T G
2051 T G G A A A A A T A T C A T C A A C T G C A T T G A G A A A A G T T A C A A A T C C A T C T T T G T C
2101 T T G T C T C C C A C A C T T T G T C C A G A G C G A A T G G T G C C A T T A T G A A C T C T A C T
2151 T G C C C A C C A C A A T T C T T C C A T G A A A G G A T C T G A T A A C T T A A T C C T G A T C T
2201 T G C T G G A A T C C A A T T C C A C A G T A T T C C A T T C C T A G C A G C T A C C A C A A G C T A
2251 A G A G C T C T C A T G G C A C A G A G A C T T A T T T G G A A T G G C C C A A G G A G A A G A G
2301 T A A A C A C G G A C T T T T T T G G G C T A A C C T A A G A G C A T C C A T T A A T A T T A A A C
2351 T G A T G G A A A A A G C A G C A G A A A T A C A T T A A
    
```

B)

```

1   M T R K N S S I F H F A I I F I L I L E I R T Q L S D E S E F L I D R S R R G L T Y V P K N L S L E
51  T T I L D I S Y N Y I S E L Q P P D I L S L S K L K I L I I S H N R I Q Y L D L S V F K F N Q E L E
101 Y L D L S H N N L E K I S C H P T L N L K H L D L S F N P F D A L P I C Q E F G N M S Q L E F L G L
151 S A T Q L Q K S S V Q S I T H L H I S K V L L V L G D T Y G E R E D A E S L Q D L K T Q S L H I V F
201 P T G K E F H F I L D V S V G T T V S L E L S N I K C V L D D N G C P Y F E N V L S K L Q R N S R L
251 S N L T L N N I E I T W N S F P T I L Q L V W R T N I E Y P S I S N V K L Q G Y L D S R D F D Y S D
301 T S L K A L S I H K V V H D V F S L P Q G Y V Y K I L S N M N I Q H L T V S A A H M V H M V C P S Q
351 I S P F L Y L N F S N N L L T D T V F I N C T N L A N L K T L I L Q K N Q L K E L V N I V H M T Q E
401 M K S L Q L L D V S Q N S L M Y D E S E G N C F W A R N L L S L N M S S N I L T D S V F R C L P P Q
451 I K V L D L H N N R I R S I P K D V T G L E T L Q E L N L A S N S L A H L P G C G I F S S L S I L I
501 I D Y N S I S N P S A D F F Q S C Q R I R S L K A G N N P F Q C S C E L R D F I Q S I G Q V S S D V
551 V E G W P E S Y K C D Y P E S Y K G T P L K D F Q V S E L S C N T A L L I V T I V P P G L V L A V A
601 V T V L C I Y L D L P W Y L R M V C Q W T Q T R R R R A R N V P L E E L Q R T L Q F H A F I S Y S G H
651 D S A W V K N E L I P N L E K E D I R I C L H E R N F V A G K S I V E N I I N C I E K S Y K S I F V
701 L S P N F V Q S E W C H Y E L Y F A H H N L F H E G S D N L I L I L L D P I P Q Y S I P S S Y H K L
751 R A L M A Q R T Y L E W P K E K S K H G L F W A N L R A S I N I K L M E K A A E I H
    
```