

1   **Journal name:** Applied Microbiology and Biotechnology

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3   **Manuscript title:** Adaptive evolution of *Salmonella* Typhimurium LT2 exposed to  
4   carvacrol lacks a uniform pattern

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17      **Table S1.** Primers used for PCR amplification and Sanger sequencing to verify the mutations of  
18      strains evolved of *Salmonella* Thyphimurium LT2. F: Forward; R: Reverse.

Gene	F primer (5' → 3')	R primer (5' → 3')
<i>flhA</i>	GGCAGGAACCCATATCCTG	GCCGGTCTGATTGGTGAAGA
<i>fliH</i>	TGTGGACGATCGCAGTATCC	CATCAGCCGTGAGGCGATAAA
<i>lon</i>	AGTACCTTGATTGCCAGCC	TGGCCAACGAGGTTTACC
<i>nirC</i>	CAGCCAACAAAGAGGCAGTG	ATAAACGCCAGCAGACACCA
<i>wbaV</i>	GCCATAACATGCCATAGCCA	GCAGTGATGATGCTCTGCG
<i>rob</i>	ATAAAATCCTGCACGCCGT	AAGTGGCACCTGCAGAGAAT
<i>sseG</i>	TGTTAACGCGCCTGAGGAAT	ACGTTGTTCTGGCGTTACCT
<i>argR</i>	GCCGCCGTATGGATAAGGAT	GTCGTAACCGCCTACCAGTC
<i>yfhP</i>	TTCATCCTTCAGACGACCGC	GTCAATATCGCACGGAACG
<i>rrsH</i>	GCAACGCGAAGAACCTTACC	TTTGATTGTTCCGGGCG

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40 **Table S2.** Primers used to construct the new strains. F: Forward; R: Reverse.

Gene	Sense	Primer sequence
<i>lon</i>	F	CGAAGGCTACATCAAGCTGAACAAAAAAATTCCGCCGGAAGTGCTGACGTTCTAATTGGTGTGACACTCTATC
	R	CACGGCTTGAAACCGCGAGATACTCAAGGATGCGGTCTTCACGCGCTCCATCAAAGGGAAAAGTGTCCATATGC
<i>yfhP</i>	F	AAGTAACCGCGTCAATATCGCACGGAACGCTAAACCTGACTAATTACTCTAATTGGTGTGACACTCTATC
	R	GCAGGGACAAGTCTGACATTCCGAGTAATTGGTCAACTATTACTGAATCAAAGGGAAAAGTGTCCATATGC
<i>wbaV</i>	F	ATATTATGTGACAGAAAAGAGACC GG TGATTGAGATTAGAATCCTAATTGGTGTGACACTCTATC
	R	CGTTTAAAGATATATTACTGTAAAAATCATTAGCTAATTAAATAATCAAAGGGAAAAGTGTCCATATGC
<i>nirC</i>	F	TAAGTGTGCGGCTAACGCTGCGCATCGCACGCCGCGAATAATCCTAATTGGTGTGACACTCTATC
	R	TTGCCAGACAAACCAGCCAGTTACACAGCGCCCTTGAGAACAGTACCATCAAAGGGAAAAGTGTCCATATGC
<i>rob</i>	F	GTTTATCGAAATCAGCAGTGGCGCTGCGTTGACCGCGCGTCCAATTCTGCTTAATTGGTGTGACACTCTATC
	R	CGGGATGCGCCGACTGAACATAGCCATCGGCCTGCTTGCAGTGCATCAAAGGGAAAAGTGTCCATATGC
<i>fliH</i>	F	TCTGGCGAACCGGGGAAATGGTATTGGCAGCGCGAGGATACCTATGATTCCGGGATCCGTCGACC
	R	CGAGATCGTGGGGTCCAGACTGCCACGGCAATTCTAGACATAGGGTAGGCTGGAGCTGCTTCG
<i>fliA</i>	F	CCTTCCGGTGCCAGAAGCGCTGGATTATGAACGAGAAGAATACTGATGATTCCGGGATCCGTCGACC
	R	CAGGGGAAAGAGCAACAACGCCAGCATTACGCATTATTCCCTCAATTGTAGGCTGGAGCTGCTTCG

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**D) SeCarC**

Carvacrol ( $\mu$ L/L)	Values			Standard error			Godness of fit		
	A	$\mu_{max}$	$\lambda$	A	$\mu_{max}$	$\lambda$	$R^2$	Adj $R^2$	RMSE
0	0.841	0.201	2.817	0.015	0.027	0.309	0.970	0.967	0.052
	0.809	0.214	3.134	0.017	0.039	0.365	0.959	0.955	0.061
	0.811	0.172	2.887	0.015	0.022	0.329	0.970	0.967	0.051
100	0.612	0.232	3.861	0.014	0.052	0.324	0.956	0.951	0.051
	0.635	0.166	3.373	0.018	0.040	0.493	0.931	0.924	0.065
	0.645	0.194	4.360	0.014	0.037	0.347	0.961	0.957	0.051

**E) SeCarD**

Carvacrol ( $\mu$ L/L)	Values			Standard error			Godness of fit		
	A	$\mu_{max}$	$\lambda$	A	$\mu_{max}$	$\lambda$	$R^2$	Adj $R^2$	RMSE
0	0.791	0.370	3.210	0.022	0.132	0.419	0.902	0.893	0.089
	0.814	0.306	3.350	0.021	0.080	0.377	0.939	0.933	0.077
	0.830	0.155	2.317	0.027	0.031	0.567	0.925	0.917	0.083
100	0.647	0.275	4.300	0.009	0.041	0.190	0.985	0.984	0.032
	0.642	0.209	3.959	0.010	0.031	0.246	0.977	0.974	0.038
	0.703	0.153	2.995	0.016	0.025	0.413	0.953	0.949	0.056
	0.704	0.177	3.314	0.015	0.031	0.373	0.957	0.952	0.055

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79 **Table S4.** Genetic variations detected by whole genome sequencing (WGS) between SeWT and  
 80 the reference genome of *Salmonella* Typhimurium LT2 (NCBI accession: NC\_003197.2). Single  
 81 nucleotide variation (SNV), insertion (Ins) and deletion (Del).

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Genome position	Genes	Locus tag	Mutation*	Change	Information
<b>290.718</b>	<i>rrsH</i>	STM0249	SNV: C1529A	No coding	RNA 16S ribosomal
<b>364.623</b>	<i>crl</i>	STM0319	Del: -T 104	Frame shift	Sigma factor-binding protein
<b>416.555</b>	<i>prpR</i>	STM0367	SNV: C1159T	Leu387Phe	Operon regulator
<b>453.939</b>	<i>brnQ</i>	STM0399	SNV: C681T	Silent mutation (Tyr227)	Branched-chain amino acid transport system carrier protein
<b>509.118</b>	<i>cypD</i>	STM0452	SNV: T450A	Asp150Glu	Peptidylprolyl isomerase
<b>608.859</b>	<i>fimH</i>	STM0547	SNV: G182C	Gly61Ala	Adhesin
<b>1.205.933</b>	Intergenic <i>wraB</i> - <i>ycdf</i>	STM1119 STM1120	SNV: G → A	No coding	-
<b>1.778.104</b>	<i>ycjF</i>	STM1684	SNV: T821C	Leu274Pro	UPF0283 membrane protein
<b>1.841.398</b>	-	STM1747	SNV: G98A	Arg33Gln	Hypothetical protein
<b>1.849.642</b>	<i>hnr</i>	STM1753	SNV: T305G	Val102Gly	Regulator of RpoS
<b>3.469.143</b>	<i>dacB</i>	STM3300	SNV: C483T	Silent mutation (Ser161)	Transpeptidase
<b>3.673.628</b>	<i>malQ</i>	STM3513	SNV: T287G	Leu96Arg	4-Alpha-glucanotransferase
<b>3.675.952</b>	<i>malP</i>	STM3514	Del: -GCCGCCTG 358	Frame shift	Alpha-1.4 phosphorylase
<b>3.819.815</b>	-	STM3633	SNV: T562C	Silent mutation (Leu188)	LacI family transcriptional regulator
<b>4.122.937</b>	<i>gppA</i>	STM3913	SNV: G385T	Gly129Cys	Pyrophosphatase
<b>4.122.950</b>	<i>gppA</i> <i>rhlB</i>	STM3913 STM3914	Del: -1.179 pb	Knock-out ( <i>gppA. rhlB</i> )	Pyrophosphatase ATP-dependent RNA helicase RhlB
<b>4.291.432</b>	<i>yiiQ</i>	STM4082	SNV: G323A	Stop-gain	Hypothetical protein
<b>4.294.693</b>	<i>glpK</i>	STM4086	SNV: G1171A	Asp391Asn	Glycerol kinase
<b>4.697.694</b>	<i>treB</i>	STM4454	Ins: + A 543	Frame shift	Pseudogene (trehalose metabolism)

83 \*Position respect to the start of the coding region.