

1 **Supplementary Methods**

- 2 **Supp. Fig. 1 - Growth curves of drug-treated cultures for RNAseq analysis.** Newman cultures were treated with the indicated
3 concentration of drug and OD₆₀₀ monitored every 20 min.

4 **Supp. Table 1: GraSR regulated genes.** The maximal upregulation at any time point for each given condition is reported. Genes
5 with maximal regulation >3 fold are highlighted in bold red font. Fold changes with significance $p < 0.05$ are marked with asterisks
6 (*) by Z-factor test and crosses (+) by T-test. Genes are arranged by decreasing maximal upregulation in any of the conditions.

GraSR upregulated		Control	PMX30063			Daptomycin			LL16		
Gene	Gene description	[$\mu\text{g}/\text{mL}$]	0.39	0.78	1.17	2.0	4.0	6.0	2.0	4.0	6.0
vraG	ABC-type transport system permease component	1.26 **	1.60 **	2.34 **	3.18 **	1.82 **	1.48 **	1.40 **	5.48 **	8.36 **	7.68 **
TarM	hypothetical protein	1.30 **	3.29 *	1.70 **	1.68 **	2.46 *	3.39 *	1.97 *	3.28 *	4.58 *	6.79 *
fmcC	oxacillin resistance-related FmcC protein	1.32 **	1.36 **	2.24 **	2.73 **	1.19 *	1.36 **	1.36 *	3.80 *	5.00 **	5.84 **
dltC	D-alanyl carrier protein	1.25 **	1.82 **	2.06 **	2.25 **	1.50 **	1.81 *	1.30 **	3.92 **	4.95 **	3.33 **
dltA	D-alanine-D-alanyl carrier protein ligase	1.17 **	1.49 *	1.96 **	2.11 **	1.76 **	1.77 **	1.63 **	3.82 **	4.37 **	4.79 **
dltB	D-alanine lipoteichoic acid and wall teichoic acid esterification protein	1.20 **	1.26 *	2.49 **	2.61 **	1.51 **	2.13 *	1.33 **	4.32 **	4.47 **	4.35 **
vraF	ABC transporter ATP-binding protein VraF	1.27 *	1.21 *	2.23 **	1.80 **	1.54 *	1.59 *	1.30 *	2.81 *	4.14 **	3.61 **
dltD	D-alanine-activating DltD protein	1.33 **	1.60 *	1.75 **	2.05 **	2.20 **	1.80 *	1.61 *	3.52 **	3.64 **	3.50 **
rplE	50S ribosomal protein L5	1.32 *	1.20 *	2.36 *	2.89 *	3.50 *	2.60 *	2.45 *	2.67 **	2.58 **	2.05 **
dltX	hypothetical protein	1.39 *	1.06 *	1.73 *	1.74 **	1.66 *	2.04 *	1.38 *	3.00 *	2.89 **	3.48 **
sdrH	SdrH protein	1.13 **	1.71 *	1.80 *	1.85 *	1.19 **	1.45 *	1.29 **	1.40 **	3.08 *	1.82 **
NWMN_0632	hypothetical protein	1.43 *	2.07 *	2.83 *	2.35 **	2.86 *	2.24 *	1.23 *	1.57 **	2.10 **	1.90 **
GraSR identified											
NWMN_1604	universal stress protein family protein	1.40 **	1.28 **	3.88 *	11.39 *	3.59 *	5.20 *	5.79 **	2.41 **	2.61 **	3.84 **
NWMN_0027	hypothetical protein	1.32	1.61	3.43 *	5.67 *	1.52	2.57 *	4.04 **	2.73 **	2.97 *	2.59 *
NWMN_1443	similar to ComG operon competence protein	2.09 †	1.7 †	0.64 **	0.92 †	0.51 **	1.52 †	2.19 †	0.95 †	5.17 *	0.55 **
NWMN_1678	oxidoreductase	1.42 *	1.15	2.34 **	3.84 **	1.28 *	1.76 *	1.65 *	1.35 **	1.56 *	2.87 *
NWMN_2408	hypothetical protein	1.64	1.58	1.77 *	3.01 *	1.41	1.78 *	1.95 *	3.51 *	3.40 *	2.76 *
NWMN_1989	hypothetical protein	1.51 **	1.31 **	2.70 *	2.68 **	2.57 **	3.48 *	3.17 **	2.96 **	2.92 **	1.9 **
spsB	signal peptidase IB	1.54 *	1.83 *	1.94 **	3.21 **	1.46 **	2.01 **	2.95 *	1.76 *	1.88 **	2.18 **

NWMN_0904	hypothetical protein	1.33	2.17 *	1.93 *	2.85 *	2.52 **	1.83 *	1.35	1.62 *	2.82 *	1.84 *
rimP	hypothetical protein	1.23 **	1.42 *	2.34 **	2.28 **	2.52 **	2.28 *	2.60 *	2.78 **	2.59 **	2.05 **
uvrB	excinuclease ABC subunit B	1.16 **	1.42 *	1.81 **	2.11 **	1.19 **	1.62 *	1.40 *	1.74 **	1.76 **	1.44 **
pnBA	para-nitrobenzyl esterase chain A	1.29 *	1.48 *	1.97 *	1.85 *	1.1	1.28 *	1.59 *	1.73 **	2.08 **	1.70 **

GraSR identified, NsaSR upregulated

oppF	oligopeptide ABC transporter	1.66	2.25 *	4.12 *	9.07 *	3.84 *	3.51 **	5.95 *	0.85	1.70	3.39 *
ald (ald1)	alanine dehydrogenase 1	1.69	2.80 *	2.39 *	2.83 *	0.84 †	0.97 †	1.06 †	1.85	2.24 *	1.75

GraSR upregulated, WalKR regulon

NWMN_2203	secretory antigen precursor SsaA	1.32 *	1.50 *	2.12 *	3.72 *	3.14 *	2.02 *	2.48 *	2.18 **	5.53 **	2.96 **
NWMN_2199	secretory antigen precursor SsaA	1.52 *	1.46	1.19	2.39 *	2.32 *	1.67 *	1.70 *	1.39	1.73 *	1.23
qoxD	quinol oxidase polypeptide IV	1.32 *	1.39 *	1.93 **	1.90 *	1.48 *	2.09 *	1.35 *	1.99 **	2.25 **	1.91 *
qoxA	quinol oxidase polypeptide II QoxA	1.27 *	1.30 *	1.70 *	1.31 *	1.21 *	1.38 *	1.24 *	1.97 *	1.85 *	1.37 *
qoxC	quinol oxidase polypeptide III	1.43 *	1.66 *	1.66 *	1.55 *	1.28 *	1.68 *	1.18	1.45 **	1.81 *	1.44 *
qoxB	quinol oxidase polypeptide I	1.34 *	1.53 *	1.67 *	1.49 *	1.13 *	1.26 *	1.16 *	1.66 **	1.52 *	1.53 *

8 **Supp. Table 2: NsaSR regulated genes.** The maximal upregulation at any time point for each given condition is reported. Genes with
9 maximal regulation >3 fold are highlighted in bold red font. Fold changes with significance $p < 0.05$ are marked with asterisks (*) by
10 Z-factor test and crosses (+) by T-test. Genes are arranged by decreasing maximal upregulation in any of the conditions.

NsaSR upregulated		Control	Brilacidin			Daptomycin			LL16		
Gene	Gene description	[$\mu\text{g/mL}$]	0.39	0.78	1.17	2.0	4.0	6.0	2.0	4.0	6.0
lysC	aspartokinase II	1.30 **	2.23 **	7.84 *	30.62 *	1.82 **	1.85 **	2.68 **	1.77 **	9.53 *	37.37 *
vraE	ABC transporter permease	1.19 **	3.09 **	2.38 **	3.64 **	2.24 **	1.19 **	1.72 **	7.89 +	24.9 **	35.34 +
thrC	threonine synthase	1.29 **	2.16 **	4.34 **	24.18 *	6.13 **	12.15 **	13.66 **	2.06 **	3.67 **	14.22 **
metL	homoserine dehydrogenase	1.18 **	1.40 **	7.02 **	24.17 *	7.35 **	15.51 **	16.64 **	2.07 **	3.91 **	16.46 **
asd	aspartate-semialdehyde dehydrogenase	1.31 **	1.89 **	4.05 **	23.41 *	3.03 **	4.96 **	4.72 **	2.10 **	4.10 **	16.12 **
vraD	ABC transporter ATP-binding protein	1.20 **	1.16 **	1.53 **	1.59 **	1.31 **	1.19 **	1.94 **	4.24 **	11.75 *	22.27 **
NWMN_2581	cobalt transport family protein	1.46 **	2.99 **	8.04 *	15.30 *	3.48 *	5.22 **	5.21 **	2.11 **	3.29 *	3.69 **
oppD	oligopeptide transport ATP-binding protein	1.59 *	1.54 *	3.79 *	14.14 *	3.65 **	6.68 *	6.24 **	1.45 *	3.72 *	3.40 *
gltB	glutamate synthase large subunit	1.09 **	1.77 **	3.65 **	5.19 **	4.39 **	7.34 **	8.32 **	1.91 **	4.02 **	12.67 **
thrA	aspartate kinase	1.47 **	3.99 *	5.20 *	10.59 **	3.96 *	2.96 **	6.90 *	4.62 *	4.62 **	4.95 **
thrB	homoserine kinase	1.39 **	1.60 **	5.51 *	10.09 **	4.84 **	6.15 **	5.66 **	1.97 **	4.06 **	7.12 **
NWMN_0721	sigma 54 modulation protein	1.41 *	1.25	4.25 *	9.56 *	2.09 *	3.61 *	5.73 *	2.10 *	1.80 *	1.64 *
NWMN_0071	acetoin reductase	1.37 **	1.10 **	3.07 **	9.37 **	4.75 **	5.77 **	8.04 **	2.35 **	1.45 **	5.33 **
NWMN_0215	hypothetical protein	1.2 **	5.44 *	2.71 **	8.77 **	3.70 *	4.2 **	1.54 **	3.57 *	4.95 *	3.88 **
oppC	oligopeptide ABC transporter	1.58	1.32	2.71 **	8.05 *	2.84 *	3.13 **	2.99 **	1.02	1.64	3.43 *
NWMN_2444	hypothetical protein	1.38 **	1.07 **	7.73 *	4.25 *	1.78 **	4.41 *	2.18 *	1.60 **	2.38 *	1.86 *
NWMN_0373	nitroreductase family protein	1.21 **	1.25 *	3.36 *	7.68 *	1.67 **	2.77 **	2.77 **	2.38 *	2.60 **	2.27 **
NWMN_0535	similar to haloacid dehalogenase-like hydrolase	1.98 *	7.43 *	3.31 *	6.56 *	3.91 *	4.16 *	2.09 **	2.81 **	5.39 *	6.41 *
NWMN_2109	truncated MHC class II analog protein	1.62 **	1.21 *	1.30 **	3.02 **	3.91 **	4.66 **	7.34 **	1.51 **	2.62 *	2.66 *
ilvD	dihydroxy-acid dehydratase	1.56 *	4.45 *	3.00 *	6.91 *	2.15 *	2.25 **	4.95 **	1.75 **	1.37 **	2.68 **
NWMN_2224	alpha-glucoside-specific IIBC component	1.45 **	1.39 **	3.44 *	6.66 **	1.11 **	1.61 *	1.39 **	2.02 **	3.71 **	2.77 **

NWMN_2044	thiol-disulphide oxidoreductase	1.22 **	1.20 **	3.83 **	4.08 **	3.25 **	2.63 **	6.56 **	4.11 *	3.09 **	1.65 **
gntP	gluconate permease	1.70	1.61	5.38 *	6.55 *	1.31	1.86	2.19 *	2.60 *	2.28 *	3.06 *
NWMN_2473	hypothetical protein	1.32 *	3.96 *	2.67 *	6.38 *	2.69 *	2.49 **	3.09 **	1.67 *	1.77 **	2.24 *
NWMN_2453	hypothetical protein	1.24 **	1.38 **	1.56 *	6.11 *	1.97 *	2.81 *	1.94 *	2.95 *	1.94 *	3.43 *
malA	alpha-D-1-4-glucosidase	1.66	1.81	4.56 *	6.02 *	1.84	1.70	1.64	2.96 *	2.92 *	2.67 *
NWMN_2043	similar to non-heme iron-containing ferritin	1.47 **	2.43 **	1.84 **	4.16 **	3.38 **	3.51 **	5.91 **	2.32 **	1.69 **	1.98 **
leuB	3-isopropylmalate dehydrogenase	1.76 **	1.69 **	3.36 **	5.64 **	2.02 **	2.59 **	3.92 **	2.84 **	3.03 **	3.49 **
NWMN_0078	hypothetical protein	1.42 **	3.19 **	3.70 **	3.37 **	2.63 **	3.77 **	3.32 **	5.45 **	4.25 **	5.20 **
ispD	similar to 4-diphosphocytidyl-2C-methyl-D- erythritol synthase	1.40	1.19	1.97 *	5.40 *	2.18 *	2.58 **	2.72 **	1.73 *	1.91 *	1.92 *
thiM	hydroxyethylthiazole kinase	1.35	1.80 *	3.39 *	5.26 *	3.24 *	1.21	1.44	1.99 *	3.97 *	2.99 *
fadD	acyl-CoA dehydrogenase FadD homolog	1.50 *	1.95 *	2.13 *	5.22 *	1.64 *	3.10 *	3.86 *	1.63 *	2.97 *	2.02 *
NWMN_0896	hypothetical protein	1.40 **	1.57 **	1.98 **	5.16 *	1.77 **	3.19 **	5.15 **	3.21 *	3.91 **	3.61 **
NWMN_0335	similar to ribosomal protein-serine acetyltransferase	1.32	3.41 *	1.12	3.19 **	3.15 *	3.78 *	5.16 *	2.69 *	2.06 *	2.19 *
NWMN_0897	lipoate-protein ligase A	1.19 **	1.20 **	2.26 *	5.09 *	1.53 *	2.54 *	2.27 **	1.88 **	1.53 **	2.09 *
oppB	hypothetical protein	1.71 *	4.53 *	2.87 **	2.78 **	2.78 **	2.68 *	1.56 **	3.92 *	5.07 *	2.44 **
mobB	molybdopterin-guanine dinucleotide biosynthesis protein B	1.50 **	1.36 *	2.71 *	5.06 *	2.03 **	3.04 *	2.67 **	3.38 **	2.71 **	2.41 **
hipO	hippurate hydrolase	1.35 *	1.27 *	1.40 *	4.95 *	1.48 *	2.05 *	2.77 *	1.19 *	1.17 *	2.61 **
NWMN_2579	hypothetical protein	1.56 *	1.50 **	2.37 **	4.77 **	1.34 *	1.68 **	2.62 *	1.91 **	2.36 **	2.31 **
metH	5-methyltetrahydrofolate-homocysteine methyltransferase	1.22	1.22	4.11 *	4.76 *	0.91	1.71 *	1.17	2.12 *	1.52 *	4.58 *
NWMN_2459	D-isomer specific 2-hydroxyacid dehydrogenase family protein	1.44	1.28	2.27 *	4.69 *	1.68 *	1.78 *	1.10	1.89 *	1.79 *	1.67 *
BraD	ABC transporter ATP-binding protein	1.33 *	2.20 *	2.10 *	1.88 *	1.54 *	1.27 *	1.06	2.77 *	3.82 **	4.66 **
NWMN_2470	hypothetical protein	1.32 *	1.07 *	1.65 *	4.63 *	1.74 *	1.55 **	1.48 **	1.15 *	2.17 *	2.61 **
purL	phosphoribosylformylglycinamide synthase II	1.31 **	2.04 *	4.49 **	3.65 **	1.49 **	3.64 **	4.49 **	3.36 **	2.40 **	2.07 **
NWMN_2589	hypothetical protein	1.26 **	1.39 *	1.94 *	3.34 *	1.57 **	3.74 **	4.49 **	1.38 **	2.18 *	1.53 **
NWMN_1640	hypothetical protein	1.55 *	1.67 *	1.95 **	4.47 **	1.52 **	2.45 *	2.48 *	3.08 *	2.42 **	2.19 **
opp1B	oligopeptide transporter putative membrane permease	1.48	2.25 *	2.30 *	4.42 *	3.14 *	3.23 *	1.34	3.38 *	3.61 *	1.16

NWMN_1998	transcriptional regulator TenA family protein	1.45 *	1.18	2.15 *	3.10 *	1.25 *	1.76 *	1.41 *	2.23 *	1.67 *	4.32 *
NWMN_0221	hypothetical protein	1.21	4.30 *	1.80 *	0.97	1.81 *	4.29 *	2.00 *	2.38 *	2.04 *	2.55 *
fdhD	formate dehydrogenase family accessory FdhD	1.21 **	1.39 *	2.16 **	4.24 *	2.63 *	1.93 **	2.26 **	2.99 *	1.47 *	2.39 **
NWMN_2428	hypothetical protein	1.36 *	4.23 *	2.20 *	2.83 *	3.63 *	2.60 *	3.76 **	1.63 **	2.12 *	2.77 **
mtIF	mannitol-specific IIBC component	1.94	4.20 *	2.63 *	2.20	2.73 *	2.42 *	3.46 *	2.57 *	2.84 *	2.01
narI	respiratory nitrate reductase gamma subunit	1.20	1.87	2.18	0.92	1.01	1.54	1.02	1.62	4.20 *	2.20
NWMN_1395	hypothetical protein	1.71 *	1.23 *	2.72 *	3.52 **	2.58 *	1.99 *	1.66 **	4.04 *	3.66 **	3.06 **
purF	glutamine phosphoribosylpyrophosphate amidotransferase	1.27 **	1.94 *	3.89 **	2.48 **	2.60 *	2.97 *	3.70 *	2.50 *	2.03 **	2.55 **
thiD	phosphomethylpyrimidine kinase	1.45 *	0.89	1.89 *	3.87 *	1.62 **	1.19 *	1.54 *	3.23 **	1.71 *	2.11 *
NWMN_2608	hypothetical protein	1.24 *	3.77 *	1.47 *	1.73 **	2.58 *	0.94	1.44 *	2.27 *	1.97 *	1.79 **
srtB	NPQTN-specific sortase B	1.27 **	2.55 *	1.69 **	2.66 *	2.63 *	1.78 **	2.07 *	3.76 *	3.18 **	2.14 **
ilvE	branched-chain-amino-acid aminotransferase	1.23 **	1.56 **	2.70 *	3.75 **	1.33 *	2.16 **	2.21 **	1.42 **	1.75 **	3.43 *
BraE	ABC transporter Permease	1.50 *	1.15	1.89 *	3.10 **	1.37 *	1.45 *	1.44 *	2.92 *	3.72 *	3.03 **
NWMN_1941	similar to nitroreductase family protein	1.35 *	3.46 *	1.62 *	2.46 *	1.73 *	1.71 *	2.79 *	2.70 *	2.02 *	1.68 *
fmhA	methicillin resistance determinant fmhA protein	1.23 **	2.31 *	3.21 **	2.37 *	2.26 **	2.80 **	3.43 *	2.12 **	2.18 **	2.40 **
NWMN_2491	hypothetical protein	1.28 **	1.37 *	2.09 *	3.38 **	3.23 *	1.78 **	2.30 **	1.51 *	3.09 **	1.81 **
NWMN_2472	hypothetical protein	1.32	1.75 *	1.36	1.93 *	2.44 *	1.78 *	3.37 *	1.49 *	2.17 *	1.18
NWMN_0894	nucleotidase family protein	1.18 **	1.44 *	1.49 **	3.35 **	1.97 *	2.14 **	1.78 **	2.05 *	1.90 **	2.27 **
NWMN_0175	flavoheмоprotein	1.42	1.37	2.51 *	3.25 *	0.84 †	0.80 †	0.77 †	2.21 *	1.02 †	1.11
scdA	cell wall metabolism protein	1.55 *	1.63 *	1.51 *	3.23 *	1.68 *	1.26	1.77 *	2.21 *	1.70 *	2.36 *
NWMN_1773	N-acetylglucosamidase for bacteriophage phiNM1	1.1 **	1.56 **	3.22 *	2.57 **	1.76 *	1.53 *	2.23 **	1.24 *	2.21 **	1.65 **
NWMN_2425	hypothetical protein	1.68 *	2.66 *	2.22 *	2.07 **	2.00 *	3.09 *	3.14 *	3.03 *	1.57 *	2.45 *
nirR	nitrite reductase transcriptional regulator NirR	1.73	1.24	2.11	1.39	1.03	2.78	0.93	3.10	1.26	1.54
tagB	teichoic acid biosynthesis protein B	1.40 *	2.20 *	3.10 *	2.75 **	1.90 **	2.02 **	1.79 **	1.28 **	2.29 *	1.92 *
NWMN_2002	hypothetical protein	1.25 *	1.40 *	2.02 *	3.10 *	0.77 **	1.87 *	1.20 *	1.63 *	1.86 *	1.24 *
arcC	carbamate kinase	1.32 *	1.47 *	2.42 **	2.61 **	1.93 **	3.04 *	1.50 *	2.36 **	1.83 **	2.58 **

NWMN_0177	similar to PTS transport system IIBC component	1.32	1.58 *	2.37 *	3.00 **	1.65 *	1.70 *	1.94 *	1.54 *	1.59 *	1.72 *
aroC	chorismate synthase	1.15	1.74 *	2.24 *	2.99 *	2.22 *	2.07 *	1.38 *	2.71 *	1.75 **	1.49 **
ldh (ldh2)	L-lactate dehydrogenase 2	1.24	1.49	1.98 *	2.92 *	1.31	1.91 *	1.97 *	2.12 *	1.26	1.59
NWMN_1226	hypothetical protein	1.31 *	1.33 *	2.17 *	1.90 *	1.40 *	0.90 **	1.01 †	1.32 *	1.06 †	2.92 *
NWMN_2379	hypothetical protein	1.29 *	2.74 *	2.90 *	1.34 *	2.18 *	1.60 *	1.35 *	1.83 *	2.25 *	2.02 *
ipdC	indole-3-pyruvate decarboxylase	1.72	2.25 *	2.89 *	2.59 *	1.28	1.02	1.43	1.57	1.71	1.30
opuCA	glycine betaine FL-proline transport ATP-binding subunit	1.27	1.31	1.65 *	2.88 **	1.20	1.75 *	1.63 *	1.29	1.03	1.47 *
mutL	DNA mismatch repair protein MutL similar to tetracenomycin polyketide synthesis O- methyltransferase	1.17 **	1.62 *	2.35 **	2.87 **	2.16 **	2.02 **	2.12 **	2.20 **	2.48 **	2.07 **
NWMN_1930		1.49	2.55 *	1.70 *	1.48	1.48	2.26 *	0.90 †	2.86 *	1.76 *	2.63 *
NWMN_0222	hypothetical protein	1.30	1.49	1.30	2.85 *	1.50	2.57 *	1.05 †	1.92 *	2.80 *	1.34
sdrC	Ser-Asp rich fibrinogen bone sialoprotein-binding protein SdrC	1.26 **	1.31 **	1.50 *	1.82 **	2.01 **	2.60 *	2.85 *	1.87 *	2.54 **	2.24 **
NWMN_0269	hypothetical protein	1.43 *	2.84 **	1.95 **	2.18 **	1.60 *	2.14 *	2.35 *	1.70 **	2.31 **	2.36 *
NWMN_2538	hypothetical protein	1.36 *	1.65 *	2.07 *	1.76 *	2.48 *	2.19 *	2.11 *	2.81 *	2.64 *	1.28 *
NWMN_0220	hypothetical protein	1.59 *	1.57 *	1.54 *	1.26 *	1.72 *	2.79 *	1.87 *	1.89 *	1.78 *	1.36 *
NWMN_2036	hypothetical protein	1.26 **	1.51 *	1.86 **	2.79 **	1.92 **	2.43 **	2.20 **	1.80 *	1.86 **	2.45 **
glcA	glucose-specific PTS transporter protein IIBC component	1.52	1.39	2.09	1.77	1.39	1.37	1.48	1.70	2.73 *	2.59 *
NWMN_2451	MmpL efflux pump	1.37 *	1.21 *	2.04 *	2.00 *	1.86 **	1.82 *	1.32 *	2.73 *	2.32 **	1.68 **
treR	trehalose operon repressor	1.48 *	1.43 *	1.48 *	1.95 *	1.68 *	1.14	1.15	2.70 *	2.10 *	1.64 *
NWMN_0656	cobalamin synthesis protein	1.23 **	2.28 **	2.10 *	1.67 **	1.66 **	2.18 *	1.73 *	2.23 *	2.70 *	1.59 **
NWMN_0186	zinc-containing alcohol dehydrogenase	1.42	1.67	2.68 *	2.35 *	1.01	1.55	1.18	1.24	1.19	1.97
entB	isochorismatase	1.37 *	1.59 *	2.60 *	2.40 *	0.90	0.93	1.98 *	2.59 *	2.61 **	1.54 **
isaB	immunodominant antigen B	1.39 *	1.84 *	2.00 *	2.33 **	2.01 *	2.02 *	2.55 *	2.59 *	2.54 **	2.44 *
NWMN_2196	hypothetical protein	1.46 *	1.69 *	1.16 *	2.59 *	1.13 *	1.29 *	1.23 *	1.33 *	1.76 *	1.49 *
NWMN_2254	similar to multidrug resistance protein A	1.61 *	1.47	1.38	2.57 *	2.48 *	1.28	0.89 †	1.81 *	1.40	1.66 *
NWMN_2303	formate nitrite transporter family protein	1.52 *	1.66 *	1.24 *	0.95	1.34 *	2.54 *	1.82 *	1.86 *	1.91 *	1.31 *
NWMN_2421	NADH-flavin oxidoreductase	1.28 *	1.17	1.39 *	1.85 *	1.74 **	2.47 *	2.2 **	1.89 *	1.85 *	1.73 *

dnaA	chromosomal replication initiator protein DnaA	1.26 *	1.48 *	1.76 *	2.46 *	1.18 *	1.84 *	1.37 *	1.82 *	1.84 **	1.81 *
NWMN_2239	aldose 1-epimerase precursor	1.38 *	1.76 *	1.54 *	1.76 **	1.68 **	2.37 *	1.82 *	2.45 **	2.10 **	1.84 **
NWMN_0912	similar to menaquinone-specific isochorismate	1.17 **	1.76 *	2.35 **	2.44 *	1.67 *	1.53 *	1.27 *	1.29 **	1.80 **	1.74 *
NWMN_2607	hypothetical protein	1.48	1.61 *	2.39 *	1.52	1.87 *	0.74 **	0.92 **	1.81 *	1.41 †	1.37 †
metB	cystathionine gamma-synthase	1.28 †	1.51 *	2.38 *	1.51 *	0.95 **	1.03 †	1.33 †	0.97 **	2.01 *	1.44 †
NWMN_2186	acyl-CoA dehydrogenase-related protein	1.33 *	1.09	1.92 *	1.60 *	1.35 *	2.38 *	2.22 **	1.99 **	1.51 *	1.57 *
NWMN_0944	similar to ABC transporter ATP-binding protein	1.30 **	2.16 **	2.37 **	1.89 **	1.54 **	1.91 **	1.82 **	2.21 **	2.01 **	1.21 *
NWMN_0800	haloacid dehalogenase-like family protein	1.27 *	1.12	1.50 *	2.34 *	0.89 †	1.23	0.95	1.36 *	2.17 *	2.35 *
NWMN_1888	tail tape measure protein for bacteriophage phiNM3	1.23 *	1.39 *	2.00 *	1.32 *	1.36 *	1.53 *	1.92 **	1.29 *	2.18 *	2.35 *
NWMN_2304	hypothetical protein	2.04	1.17 †	1.12 †	1.62	1.00 †	1.03 †	1.09 †	2.35	1.76	1.07 †
treC	C alpha-phosphotrehalase	1.58 *	1.93 *	1.83 *	1.97 *	1.59 *	1.38 *	1.16	2.21 *	2.33 *	2.02 *
NWMN_0561	hypothetical protein	1.25 *	1.32 *	2.30 *	1.61 *	1.00 †	1.51 *	1.54 *	1.41 *	2.26 *	1.45 *
NWMN_0249	nucleotidase lipoprotein family protein	1.37	1.88 *	0.79 **	0.54 **	1.01 †	1.23 †	1.24 †	2.30 *	1.25 †	0.90 †
NWMN_0777	hypothetical protein	1.33 *	1.70 *	1.76 *	1.65 *	1.47 *	1.97 *	1.90 *	2.30 **	1.33 **	1.56 *
moeA	molybdopterin biosynthesis protein MoeA	1.49 *	1.70 *	2.14 *	2.29 *	1.47 **	1.61 *	1.74 *	1.43 **	1.94 **	1.91 *
NWMN_0115	hypothetical protein	1.42	1.70	1.66	1.85 *	1.92 *	1.05	1.00	1.74	2.28 *	1.34
narH	nitrate reductase beta chain	1.15	2.25	1.23	1.26	0.92	0.65	1.30	1.23	1.12	1.08
NWMN_0256	hypothetical protein	1.79	0.89	1.60	2.24	1.85	0.92	1.26	1.86	1.96	1.23
mvaS	3-hydroxy-3-methylglutaryl coenzyme A synthase	1.39 *	2.01 *	1.43 **	2.24 *	1.73 **	1.67 **	1.53 **	2.05 **	1.97 **	1.58 **
NWMN_0943	similar to cobalt transport protein	1.32 *	1.51 **	2.24 **	1.95 *	1.19 *	1.59 **	1.56 **	1.42 *	1.91 *	1.34 *
NWMN_2386	similar to helicase	1.21 *	1.62 *	1.25 *	1.94 *	1.36 *	2.13 *	1.53 *	1.54 **	2.21 *	1.76 *
NWMN_0223	hypothetical protein	1.31 *	1.35 *	1.81 *	1.75 *	1.21 *	2.12 *	2.21 *	1.74 **	1.71 **	1.40 *
NWMN_2447	methylated-DNA-protein-cysteine methyltransferase	1.23 *	1.39 *	1.71 *	2.20 *	1.17 *	1.21 *	1.33 *	1.38 *	1.59 *	1.64 *
NWMN_2240	hypothetical protein	1.29 *	1.60 *	1.74 *	1.42 *	1.81 *	1.56 *	1.48 *	2.20 **	1.75 **	1.25 **
narG	nitrate reductase alpha subunit	1.27	2.04	1.28	1.29	1.61	1.30	2.18	1.44	1.47	1.05
NWMN_2392	hypothetical protein	1.37 *	1.31 *	1.87 *	1.60 *	1.46 **	1.70 *	2.00 *	2.07 *	2.18 **	1.94 *

NWMN_2241	hypothetical protein	1.16 *	1.36 *	1.81 *	2.02 *	1.52 *	2.08 *	1.92 *	1.84 *	2.17 *	1.68 *
NWMN_0114	cation efflux family protein	1.26	1.51 *	1.63 *	1.21	1.80 *	1.45 *	1.15	1.29	2.15 *	1.66 *
queC	7-cyano-7-carbaguanine synthase	1.32 *	1.72 *	1.79 *	1.51 *	1.70 *	2.12 *	1.38 *	1.52 *	2.05 *	1.31 *
NWMN_1990	hypothetical protein	1.21	2.12 *	1.56	1.51	1.35	1.10	1.29	1.35	1.67	1.15
sbcD	exonuclease SbcD	1.20 *	2.12 *	2.09 **	1.77 **	1.35 **	1.40 *	1.17 *	1.56 *	1.67 **	1.52 *
modC	molybdenum ABC transporter ATP-binding protein	1.39 *	1.49 *	1.19	1.47 *	1.27	1.77 *	2.09 *	1.44 *	1.76 *	1.59 *
NWMN_0119	hypothetical protein	1.24	1.42	2.09 *	0.90 †	0.99	1.37	1.38	1.83 *	1.69	1.69
modB	molybdenum ABC transporter permease protein	1.09 †	1.05 †	1.50 *	1.17 *	1.05 †	1.11 †	1.55 *	1.14 *	1.39 *	2.06 *
NWMN_2253	drug resistance transporter EmrB QacA subfamily protein	1.35 *	1.46 *	1.39 *	2.05 *	1.58 *	1.34 *	1.11	1.73 *	1.87 *	1.50 *
NWMN_2185	iron compound ABC transporter iron compound-binding protein	1.22	1.50	1.10	1.68	2.04	0.91 †	0.82 †	1.68	1.40	1.17
NWMN_1035	N-acetylglucosamidase for bacteriophage phiNM2	1.32 *	1.62 *	1.59 *	1.48 *	1.38 *	1.38 *	2.00 *	1.46 *	1.13	1.83 *
NWMN_0945	hypothetical protein	1.51 *	1.93 **	1.44 *	1.99 **	1.57 *	1.74 **	1.53 **	1.73 **	1.86 **	1.86 **
NWMN_0151	similar to ABC transporter ATP-binding protein	1.66	1.13 †	1.45 †	1.26 †	0.81 †	1.00 †	0.71 †	1.45	1.96	1.87 †
NWMN_2489	hypothetical protein	1.24 *	1.50 *	1.51 *	1.71 *	1.28 *	1.13	1.15 **	1.72 *	1.94 *	1.33 *
NWMN_1691	hypothetical protein	1.62	1.30	1.26 †	1.88	1.93	1.34	0.91 †	1.06 †	0.96 †	0.77 †
NWMN_1584	hypothetical protein	1.46 *	1.49 *	1.92 *	1.73 *	0.90 **	1.19 *	1.22 *	1.69 *	1.49 *	1.12
moaB	molybdopterin precursor biosynthesis	1.30 *	1.11 *	1.91 *	1.58 *	1.35 *	1.20 *	1.27 *	1.47 *	1.57 **	1.06 *
hsdR	type-I restriction-modification system restriction endonuclease subunit	1.24	1.57 *	1.12	1.49 *	1.37	1.50 *	1.55 *	1.52 *	1.39	1.89 *
NWMN_0387	hypothetical protein	1.46	1.01 †	1.13	1.23	1.86	1.13	1.38	1.04	0.93 †	1.01
NWMN_0419	hypothetical protein	1.46 *	1.42	1.05 †	1.41	1.54 *	1.78 *	1.83 *	0.79 **	1.31 †	1.15 †
htrA	serine protease HtrA	1.19 *	1.29 *	1.46 *	1.54 **	1.50 *	1.45 *	1.21 *	1.58 **	1.67 **	1.83 *
NWMN_0413	hypothetical protein	1.16 *	1.58 *	1.6 *	1.80 *	1.34 *	1.79 *	1.63 **	1.30 **	1.58 **	1.43 **
azoR	acyl carrier protein phosphodiesterase	1.20 †	1.03 †	1.46 †	0.81 **	1.42	1.16 †	1.38 †	1.80 *	0.95 **	1.35 †
thil	thiamine biosynthesis protein Thil	1.14	1.32	1.00 †	1.44	1.47	1.42	1.30 †	1.51	1.75 *	1.11
NWMN_0375	hypothetical protein	1.11	1.52 *	1.46 *	1.27	1.06	1.37 *	1.35 *	1.16	1.72 *	1.30 *
NWMN_0615	hypothetical protein	1.26	1.49 *	1.69 *	1.56 *	1.29	0.89 †	0.97 †	1.25	1.41 *	1.46 *

narJ	respiratory nitrate reductase delta subunit	1.66	1.10	1.17	0.47 *	0.65 *	0.57 *	0.69 *	1.09	1.05	0.89
fda	fructose-bisphosphate aldolase class-I	1.29 *	1.12 *	1.42 *	1.40 *	1.03	1.47 *	1.59 *	1.65 *	1.58 *	1.24 *
NWMN_0705	ferrichrome ABC transporter lipoprotein	1.43	1.35	1.25	1.27	1.51	0.69 *	0.99 *	1.50	1.63 *	1.53
NWMN_0172	hypothetical protein	1.26 *	1.58 *	1.60 *	1.25 *	1.06	1.23	1.27 *	1.48 *	1.11 *	0.99 *
pdxS	pyridoxine biosynthesis protein	1.31	1.20	1.14 *	1.02 *	1.16 *	1.54 *	1.45 *	1.17 *	1.20 *	0.99 *
spa	immunoglobulin G binding protein A precursor	1.44	0.79 *	0.64 *	0.57 *	1.19 *	1.25 *	1.5 *	1.14 *	0.83 *	0.70 *
ackA	acetate kinase	1.23	1.37 *	1.28 *	1.04 *	1.41 *	1.48 *	1.17 *	1.34 *	1.30 *	1.16
pdxT	similar to SNO glutamine amidotransferase	1.30	1.25	1.35 *	0.83 **	1.17 *	1.34 *	1.20 *	1.25 *	1.03 *	1.10 *

NsaSR upregulated, VraSR regulated

NWMN_2223	hypothetical protein	1.16 **	1.53 **	7.20 **	13.41 **	2.51 **	2.39 **	3.14 **	3.22 **	4.52 **	4.51 **
NWMN_1333	phosphotransferase system glucose-specific IIA component	1.19 **	1.56 **	5.64 **	10.84 **	1.82 **	3.58 **	3.42 **	1.55 **	2.44 **	3.66 **

NsaSR upregulated, WalkR regulated

clpB	ATP-dependent Clp protease ATP-binding subunit	1.44 **	1.59 **	8.96 *	36.5 *	8.82 **	24.43 **	32.7 **	1.75 **	2.33 **	1.87 **
ilvA (ilvA1)	threonine dehydratase	1.26 **	1.69 **	5.24 *	8.49 *	3.47 **	3.15 **	3.91 **	1.39 **	3.75 *	5.75 **
NWMN_2590	transcriptional regulator PadR-like family protein	1.28 **	1.19 **	1.87 **	3.50 **	1.99 **	4.2 **	5.34 **	1.54 **	1.88 **	1.71 **
pyrAB	carbamoyl-phosphate synthase pyrimidine-specific large chain	1.77	1.90	0.97	0.73 *	2.01 *	4.64 *	4.26 *	2.29 *	1.55	1.65
glpQ	glycerophosphoryl diester phosphodiesterase	1.43 *	1.61 *	1.75 *	1.60 *	1.36 *	1.00 *	1.65 *	1.62 *	2.47 *	1.63 *
NWMN_1689	hypothetical protein	1.33	1.18 *	1.82 *	2.45 *	1.54	1.38	1.46	1.83 *	2.05 *	1.34
NWMN_1688	hypothetical protein	1.70 *	1.06 *	1.85 *	2.12 *	1.04	1.44 *	1.56 *	1.56 *	1.52	1.07 *
NWMN_1070	similar to fibrinogen-binding protein	1.28 *	1.46 *	1.30 *	1.62 *	1.31 *	1.65 *	1.84 *	0.88 *	1.60 *	1.34 *

NsaSR downregulated

NWMN_1916	hypothetical protein	1.26 **	2.01 *	3.65 **	2.29 *	3.34 **	3.76 *	3.89 **	9.21 *	2.36 **	3.03 **
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NWMN_0089	similar to DNA-binding protein	1.03 **	1.10 **	6.76 *	3.1 *	3.55 *	1.04 **	1.07 **	1.09 **	1.05 **	1.07 **
capE	capsular polysaccharide biosynthesis protein CapE	1.34 **	1.67 **	3.85 *	3.55 **	1.38 **	1.80 *	2.26 **	1.59 **	6.62 **	6.69 *
capI	capsular polysaccharide biosynthesis protein CapI	1.21 **	2.42 *	6.08 *	3.63 *	3.62 *	1.74 *	1.87 *	2.02 **	3.12 **	2.78 **
capG	UDP-N-acetylglucosamine 2-epimerase	1.26 *	1.57 *	2.96 *	2.96 **	1.92 **	1.00 *	1.97 **	1.34 *	5.42 **	4.39 *
NWMN_1828	hypothetical protein	1.72 *	0.98 †	2.17 *	0.86 †	2.67 *	3.75 *	1.56 *	5.22 *	2.47 *	1.57 *
sspB	staphopain thiol proteinase	1.37 *	2.34 *	4.13 *	1.34	4.86 *	1.84 *	1.69 *	3.92 *	2.51 *	1.54 *
capL	capsular polysaccharide biosynthesis protein glycosyltransferase CapL	1.58 *	4.85 *	3.09 **	3.07 *	1.75 **	3.06 *	2.89 *	2.47 *	3.56 **	3.39 **
capD	dTDP-4-dehydrorhamnose reductase	1.26 **	1.69 **	1.69 **	1.85 **	1.58 **	2.02 **	1.53 **	2.02 **	3.35 **	4.05 **
adhE	iron-containing alcohol dehydrogenase	1.39	1.99 *	2.43 *	2.48 *	1.39	1.50	1.76 *	3.95 *	3.97 *	3.28 *
capH	capsular polysaccharide synthesis enzyme O-acetyl transferase CapH	1.29 **	3.68 *	1.83 *	1.77 **	1.17 *	3.45 *	1.43 *	1.55 *	3.51 *	2.85 **
mnhC	Na-H antiporter component	1.44 *	1.52 *	3.64 *	2.28 *	1.86 *	2.12 *	2.02 **	1.83 **	2.42 **	2.19 **
sepA	Antiseptic resistance protein SepA	1.23 **	1.43 *	2.55 **	2.79 **	1.86 **	1.71 **	2.01 **	2.44 *	2.56 **	2.19 **
NWMN_2407	hypothetical protein	1.17 *	1.51 *	2.06 *	1.73 **	0.98 *	1.34 *	1.11 *	1.34 *	2.76 **	1.85 **
NWMN_0037	similar to LysR family regulatory protein	1.26	0.94 †	2.52 *	2.41 *	2.03 *	2.42 *	1.42	2.13 *	1.41	2.60 *
NWMN_2468	acetyltransferase GNAT family protein	1.19	1.05	1.74 *	1.42	1.25	1.07 †	0.91 †	1.46	2.49 *	1.71 *
sspA	V8 protease glutamyl endopeptidase precursor	1.14	1.90 *	1.81 *	1.40 *	1.52 *	1.25	0.96 †	2.47 *	1.53 *	1.60 *
hysA	hyaluronate lyase precursor	1.47 *	1.82 *	1.77 *	2.31 *	1.30 *	1.66 *	1.87 *	1.91 **	2.00 **	2.47 **
NWMN_1397	hypothetical protein	1.71 *	1.11	2.46 *	2.20 *	1.31 *	1.42 *	1.35 *	2.13 *	2.05 **	1.70 *
capO	UDP-N-acetyl-D-mannosaminuronic acid dehydrogenase	1.38 *	0.77 **	1.56 *	1.67 *	1.43 *	0.89 †	1.30	1.37 *	1.86 *	1.29
NWMN_0704	ABC transporter ATP-binding protein	1.74	1.60	0.91 †	1.58	1.30 †	0.85 †	1.08 †	1.20 †	1.84 *	1.32
NWMN_0313	phage amidase for bacteriophage phiNM4	1.34 *	1.37 *	1.36 *	1.57 *	1.36 *	1.31 **	1.28 *	1.27 *	1.31 *	1.44 *
NWMN_1769	amidase for bacteriophage phiNM1	1.25	1.30	1.37	1.07 †	1.12 †	1.03 †	1.23 †	1.26	1.38	1.27

NsaSR downregulated, WalkR regulated

spIC	serine protease SpIC	1.48 *	2.57 *	12.13 *	3.01 **	2.05 **	2.44 *	2.71 **	4.23 **	2.36 **	2.42 *
spIE	serine protease SpIE	1.06 **	6.93 *	4.07 *	4.91 *	11.23 *	2.29 **	1.15 **	4.29 *	1.64 **	2.30 **

spID	serine protease SplD	1.18 **	4.98 *	2.63 *	2.81 *	1.68 **	6.09 *	4.32 *	4.04 *	7.37 *	3.24 *
fnbA	fibronectin binding protein A precursor	1.40	0.78	2.01 *	2.33 *	4.76 *	2.00 *	2.04 **	1.44	2.08 **	1.68 *
splA	serine protease SplA	1.89 *	1.44	1.25 †	1.76 *	1.22	0.95 †	1.86 *	2.01 *	1.42	1.37 †
hIb	truncated beta-hemolysin	1.22	1.29	1.58 *	1.18	1.37 *	1.56 *	1.70 *	1.28	1.53 *	1.13
NsaSR upregulated		Control	PMX30063			Daptomycin			LL16		
Gene	Gene description	[µg/mL]	0.39	0.78	1.17	2.0	4.0	6.0	2.0	4.0	6.0
lysC	aspartokinase II	1.3 **	2.23 **	7.84 *	30.62 *	1.82 **	1.85 **	2.68 **	1.77 **	9.53 *	37.37 *
vraE	ABC transporter permease	1.19 **	3.09 **	2.38 **	3.64 **	2.24 **	1.19 **	1.72 **	7.89 †	24.9 **	35.34 †
thrC	threonine synthase	1.29 **	2.16 **	4.34 **	24.18 *	6.13 **	12.15 **	13.66 **	2.06 **	3.67 **	14.22 **
metL	homoserine dehydrogenase	1.18 **	1.40 **	7.02 **	24.17 *	7.35 **	15.51 **	16.64 **	2.07 **	3.91 **	16.46 **
asd	aspartate-semialdehyde dehydrogenase	1.31 **	1.89 **	4.05 **	23.41 *	3.03 **	4.96 **	4.72 **	2.10 **	4.10 **	16.12 **
vraD	ABC transporter ATP binding protein	1.20 **	1.16 **	1.53 **	1.59 **	1.31 **	1.19 **	1.94 **	4.24 **	11.75 *	22.27 **
NWMN_2581	cobalt transport family protein	1.46 **	2.99 **	8.04 *	15.30 *	3.48 *	5.22 **	5.21 **	2.11 **	3.29 *	3.69 **
oppD	oligopeptide transport ATP-binding protein	1.59 *	1.54 *	3.79 *	14.14 *	3.65 **	6.68 *	6.24 **	1.45 *	3.72 *	3.40 *
gltB	glutamate synthase large subunit	1.09 **	1.77 **	3.65 **	5.19 **	4.39 **	7.34 **	8.32 **	1.91 **	4.02 **	12.67 **
thrA	aspartate kinase	1.47 **	3.99 *	5.20 *	10.59 **	3.96 *	2.96 **	6.90 *	4.62 *	4.62 **	4.95 **
thrB	homoserine kinase	1.39 **	1.60 **	5.51 *	10.09 **	4.84 **	6.15 **	5.66 **	1.97 **	4.06 **	7.12 **
NWMN_0721	sigma 54 modulation protein	1.41 *	1.25	4.25 *	9.56 *	2.09 *	3.61 *	5.73 *	2.10 *	1.80 *	1.64 *
NWMN_0071	acetoin reductase	1.37 **	1.10 **	3.07 **	9.37 **	4.75 **	5.77 **	8.04 **	2.35 **	1.45 **	5.33 **
NWMN_0215	hypothetical protein	1.2 **	5.44 *	2.71 **	8.77 **	3.70 *	4.2 **	1.54 **	3.57 *	4.95 *	3.88 **
oppC	oligopeptide ABC transporter	1.58	1.32	2.71 **	8.05 *	2.84 *	3.13 **	2.99 **	1.02	1.64	3.43 *
NWMN_2444	hypothetical protein	1.38 **	1.07 **	7.73 *	4.25 *	1.78 **	4.41 *	2.18 *	1.60 **	2.38 *	1.86 *
NWMN_0373	nitroreductase family protein	1.21 **	1.25 *	3.36 *	7.68 *	1.67 **	2.77 **	2.77 **	2.38 *	2.60 **	2.27 **
NWMN_0535	similar to haloacid dehalogenase-like hydrolase	1.98 *	7.43 *	3.31 *	6.56 *	3.91 *	4.16 *	2.09 **	2.81 **	5.39 *	6.41 *
NWMN_2109	truncated MHC class II analog protein	1.62 **	1.21 *	1.30 **	3.02 **	3.91 **	4.66 **	7.34 **	1.51 **	2.62 *	2.66 *
ilvD	dihydroxy-acid dehydratase	1.56 *	4.45 *	3.00 *	6.91 *	2.15 *	2.25 **	4.95 **	1.75 **	1.37 **	2.68 **

NWMN_2224	alpha-glucoside-specific IIBC component	1.45 **	1.39 **	3.44 *	6.66 **	1.11 **	1.61 *	1.39 **	2.02 **	3.71 **	2.77 **
NWMN_2044	thiol-disulphide oxidoreductase	1.22 **	1.20 **	3.83 **	4.08 **	3.25 **	2.63 **	6.56 **	4.11 *	3.09 **	1.65 **
gntP	gluconate permease	1.7	1.61	5.38 *	6.55 *	1.31	1.86	2.19 *	2.60 *	2.28 *	3.06 *
NWMN_2473	hypothetical protein	1.32 *	3.96 *	2.67 *	6.38 *	2.69 *	2.49 **	3.09 **	1.67 *	1.77 **	2.24 *
NWMN_2453	hypothetical protein	1.24 **	1.38 **	1.56 *	6.11 *	1.97 *	2.81 *	1.94 *	2.95 *	1.94 *	3.43 *
malA	alpha-D-1-4-glucosidase	1.66	1.81	4.56 *	6.02 *	1.84	1.70	1.64	2.96 *	2.92 *	2.67 *
NWMN_2043	similar to non-heme iron-containing ferritin	1.47 **	2.43 **	1.84 **	4.16 **	3.38 **	3.51 **	5.91 **	2.32 **	1.69 **	1.98 **
leuB	3-isopropylmalate dehydrogenase	1.76 **	1.69 **	3.36 **	5.64 **	2.02 **	2.59 **	3.92 **	2.84 **	3.03 **	3.49 **
NWMN_0078	hypothetical protein	1.42 **	3.19 **	3.70 **	3.37 **	2.63 **	3.77 **	3.32 **	5.45 **	4.25 **	5.2 **
ispD	similar to 4-diphosphocytidyl-2C-methyl-D- erythritol synthase	1.4	1.19	1.97 *	5.40 *	2.18 *	2.58 **	2.72 **	1.73 *	1.91 *	1.92 *
thiM	hydroxyethylthiazole kinase	1.35	1.80 *	3.39 *	5.26 *	3.24 *	1.21	1.44	1.99 *	3.97 *	2.99 *
fadD	acyl-CoA dehydrogenase FadD homolog	1.5 *	1.95 *	2.13 *	5.22 *	1.64 *	3.10 *	3.86 *	1.63 *	2.97 *	2.02 *
NWMN_0896	hypothetical protein	1.4 **	1.57 **	1.98 **	5.16 *	1.77 **	3.19 **	5.15 **	3.21 *	3.91 **	3.61 **
NWMN_0335	similar to ribosomal protein-serine acetyltransferase	1.32	3.41 *	1.12	3.19 **	3.15 *	3.78 *	5.16 *	2.69 *	2.06 *	2.19 *
NWMN_0897	lipoate-protein ligase A	1.19 **	1.20 **	2.26 *	5.09 *	1.53 *	2.54 *	2.27 **	1.88 **	1.53 **	2.09 *
oppB	hypothetical protein	1.71 *	4.53 *	2.87 **	2.78 **	2.78 **	2.68 *	1.56 **	3.92 *	5.07 *	2.44 **
mobB	molybdopterin-guanine dinucleotide biosynthesis protein B	1.5 **	1.36 *	2.71 *	5.06 *	2.03 **	3.04 *	2.67 **	3.38 **	2.71 **	2.41 **
hipO	hippurate hydrolase	1.35 *	1.27 *	1.40 *	4.95 *	1.48 *	2.05 *	2.77 *	1.19 *	1.17 *	2.61 **
NWMN_2579	hypothetical protein	1.56 *	1.50 **	2.37 **	4.77 **	1.34 *	1.68 **	2.62 *	1.91 **	2.36 **	2.31 **
metH	5-methyltetrahydrofolate-homocysteine methyltransferase	1.22	1.22	4.11 *	4.76 *	0.91	1.71 *	1.17	2.12 *	1.52 *	4.58 *
NWMN_2459	D-isomer specific 2-hydroxyacid dehydrogenase family protein	1.44	1.28	2.27 *	4.69 *	1.68 *	1.78 *	1.10	1.89 *	1.79 *	1.67 *
NWMN_2470	hypothetical protein	1.32 *	1.07 *	1.65 *	4.63 *	1.74 *	1.55 **	1.48 **	1.15 *	2.17 *	2.61 **
purL	phosphoribosylformylglycinamide synthase II	1.31 **	2.04 *	4.49 **	3.65 **	1.49 **	3.64 **	4.49 **	3.36 **	2.4 **	2.07 **
NWMN_2589	hypothetical protein	1.26 **	1.39 *	1.94 *	3.34 *	1.57 **	3.74 **	4.49 **	1.38 **	2.18 *	1.53 **
NWMN_1640	hypothetical protein	1.55 *	1.67 *	1.95 **	4.47 **	1.52 **	2.45 *	2.48 *	3.08 *	2.42 **	2.19 **
opp1B	oligopeptide transporter putative membrane permease	1.48	2.25 *	2.30 *	4.42 *	3.14 *	3.23 *	1.34	3.38 *	3.61 *	1.16

NWMN_1998	transcriptional regulator TenA family protein	1.45 *	1.18	2.15 *	3.10 *	1.25 *	1.76 *	1.41 *	2.23 *	1.67 *	4.32 *
NWMN_0221	hypothetical protein	1.21	4.3 *	1.80 *	0.97	1.81 *	4.29 *	2.00 *	2.38 *	2.04 *	2.55 *
fdhD	formate dehydrogenase family accessory FdhD	1.21 **	1.39 *	2.16 **	4.24 *	2.63 *	1.93 **	2.26 **	2.99 *	1.47 *	2.39 **
NWMN_2428	hypothetical protein	1.36 *	4.23 *	2.20 *	2.83 *	3.63 *	2.60 *	3.76 **	1.63 **	2.12 *	2.77 **
mtlF	mannitol-specific IIBC component	1.94	4.20 *	2.63 *	2.20	2.73 *	2.42 *	3.46 *	2.57 *	2.84 *	2.01
narI	respiratory nitrate reductase gamma subunit	1.2	1.87	2.18	0.92	1.01	1.54	1.02	1.62	4.20 *	2.20
NWMN_1395	hypothetical protein	1.71 *	1.23 *	2.72 *	3.52 **	2.58 *	1.99 *	1.66 **	4.04 *	3.66 **	3.06 **
purF	glutamine phosphoribosylpyrophosphate amidotransferase	1.27 **	1.94 *	3.89 **	2.48 **	2.60 *	2.97 *	3.70 *	2.5 *	2.03 **	2.55 **
thiD	phosphomethylpyrimidine kinase	1.45 *	0.89	1.89 *	3.87 *	1.62 **	1.19 *	1.54 *	3.23 **	1.71 *	2.11 *
NWMN_2608	hypothetical protein	1.24 *	3.77 *	1.47 *	1.73 **	2.58 *	0.94	1.44 *	2.27 *	1.97 *	1.79 **
srtB	NPQTN-specific sortase B	1.27 **	2.55 *	1.69 **	2.66 *	2.63 *	1.78 **	2.07 *	3.76 *	3.18 **	2.14 **
ilvE	branched-chain-amino-acid aminotransferase	1.23 **	1.56 **	2.70 *	3.75 **	1.33 *	2.16 **	2.21 **	1.42 **	1.75 **	3.43 *
NWMN_1941	similar to nitroreductase family protein	1.35 *	3.46 *	1.62 *	2.46 *	1.73 *	1.71 *	2.79 *	2.70 *	2.02 *	1.68 *
fmhA	methicillin resistance determinant fmhA protein	1.23 **	2.31 *	3.21 **	2.37 *	2.26 **	2.80 **	3.43 *	2.12 **	2.18 **	2.40 **
NWMN_2491	hypothetical protein	1.28 **	1.37 *	2.09 *	3.38 **	3.23 *	1.78 **	2.30 **	1.51 *	3.09 **	1.81 **
NWMN_2472	hypothetical protein	1.32	1.75 *	1.36	1.93 *	2.44 *	1.78 *	3.37 *	1.49 *	2.17 *	1.18
NWMN_0894	nucleotidase family protein	1.18 **	1.44 *	1.49 **	3.35 **	1.97 *	2.14 **	1.78 **	2.05 *	1.90 **	2.27 **
NWMN_0175	flavoheмоprotein	1.42	1.37	2.51 *	3.25 *	0.84 †	0.80 †	0.77 †	2.21 *	1.02 †	1.11
scdA	cell wall metabolism protein	1.55 *	1.63 *	1.51 *	3.23 *	1.68 *	1.26	1.77 *	2.21 *	1.70 *	2.36 *
NWMN_1773	N-acetylglucosamidase for bacteriophage phiNM1	1.1 **	1.56 **	3.22 *	2.57 **	1.76 *	1.53 *	2.23 **	1.24 *	2.21 **	1.65 **
NWMN_2425	hypothetical protein	1.68 *	2.66 *	2.22 *	2.07 **	2.00 *	3.09 *	3.14 *	3.03 *	1.57 *	2.45 *
nirR	nitrite reductase transcriptional regulator NirR	1.73	1.24	2.11	1.39	1.03	2.78	0.93	3.10	1.26	1.54
tagB	teichoic acid biosynthesis protein B	1.4 *	2.20 *	3.10 *	2.75 **	1.90 **	2.02 **	1.79 **	1.28 **	2.29 *	1.92 *
NWMN_2002	hypothetical protein	1.25 *	1.40 *	2.02 *	3.10 *	0.77 **	1.87 *	1.20 *	1.63 *	1.86 *	1.24 *
arcC	carbamate kinase	1.32 *	1.47 *	2.42 **	2.61 **	1.93 **	3.04 *	1.50 *	2.36 **	1.83 **	2.58 **
NWMN_0177	similar to PTS transport system IIBC component	1.32	1.58 *	2.37 *	3.00 **	1.65 *	1.70 *	1.94 *	1.54 *	1.59 *	1.72 *

aroC	chorismate synthase	1.15	1.74 *	2.24 *	2.99 *	2.22 *	2.07 *	1.38 *	2.71 *	1.75 **	1.49 **
ldh (ldh2)	L-lactate dehydrogenase 2	1.24	1.49	1.98 *	2.92 *	1.31	1.91 *	1.97 *	2.12 *	1.26	1.59
NWMN_1226	hypothetical protein	1.31 *	1.33 *	2.17 *	1.90 *	1.40 *	0.90 **	1.01 †	1.32 *	1.06 †	2.92 *
NWMN_2379	hypothetical protein	1.29 *	2.74 *	2.90 *	1.34 *	2.18 *	1.60 *	1.35 *	1.83 *	2.25 *	2.02 *
ipdC	indole-3-pyruvate decarboxylase	1.72	2.25 *	2.89 *	2.59 *	1.28	1.02	1.43	1.57	1.71	1.30
opuCA	glycine betaine FL-proline transport ATP-binding subunit	1.27	1.31	1.65 *	2.88 **	1.20	1.75 *	1.63 *	1.29	1.03	1.47 *
mutL	DNA mismatch repair protein MutL	1.17 **	1.62 *	2.35 **	2.87 **	2.16 **	2.02 **	2.12 **	2.20 **	2.48 **	2.07 **
NWMN_1930	similar to tetracenomycin polyketide synthesis O-methyltransferase	1.49	2.55 *	1.70 *	1.48	1.48	2.26 *	0.90 †	2.86 *	1.76 *	2.63 *
NWMN_0222	hypothetical protein	1.3	1.49	1.30	2.85 *	1.50	2.57 *	1.05 †	1.92 *	2.80 *	1.34
sdrC	Ser-Asp rich fibrinogen bone sialoprotein-binding protein SdrC	1.26 **	1.31 **	1.50 *	1.82 **	2.01 **	2.60 *	2.85 *	1.87 *	2.54 **	2.24 **
NWMN_0269	hypothetical protein	1.43 *	2.84 **	1.95 **	2.18 **	1.60 *	2.14 *	2.35 *	1.70 **	2.31 **	2.36 *
NWMN_2538	hypothetical protein	1.36 *	1.65 *	2.07 *	1.76 *	2.48 *	2.19 *	2.11 *	2.81 *	2.64 *	1.28 *
NWMN_0220	hypothetical protein	1.59 *	1.57 *	1.54 *	1.26 *	1.72 *	2.79 *	1.87 *	1.89 *	1.78 *	1.36 *
NWMN_2036	hypothetical protein	1.26 **	1.51 *	1.86 **	2.79 **	1.92 **	2.43 **	2.20 **	1.80 *	1.86 **	2.45 **
glcA	glucose-specific PTS transporter protein IIABC component	1.52	1.39	2.09	1.77	1.39	1.37	1.48	1.70	2.73 *	2.59 *
NWMN_2451	MmpL efflux pump	1.37 *	1.21 *	2.04 *	2.00 *	1.86 **	1.82 *	1.32 *	2.73 *	2.32 **	1.68 **
treR	trehalose operon repressor	1.48 *	1.43 *	1.48 *	1.95 *	1.68 *	1.14	1.15	2.70 *	2.10 *	1.64 *
NWMN_0656	cobalamin synthesis protein	1.23 **	2.28 **	2.10 *	1.67 **	1.66 **	2.18 *	1.73 *	2.23 *	2.70 *	1.59 **
NWMN_0186	zinc-containing alcohol dehydrogenase	1.42	1.67	2.68 *	2.35 *	1.01	1.55	1.18	1.24	1.19	1.97
entB	isochorismatase	1.37 *	1.59 *	2.60 *	2.40 *	0.90	0.93	1.98 *	2.59 *	2.61 **	1.54 **
isaB	immunodominant antigen B	1.39 *	1.84 *	2.00 *	2.33 **	2.01 *	2.02 *	2.55 *	2.59 *	2.54 **	2.44 *
NWMN_2196	hypothetical protein	1.46 *	1.69 *	1.16 *	2.59 *	1.13 *	1.29 *	1.23 *	1.33 *	1.76 *	1.49 *
NWMN_2254	similar to multidrug resistance protein A	1.61 *	1.47	1.38	2.57 *	2.48 *	1.28	0.89 †	1.81 *	1.40	1.66 *
NWMN_2303	formate nitrite transporter family protein	1.52 *	1.66 *	1.24 *	0.95	1.34 *	2.54 *	1.82 *	1.86 *	1.91 *	1.31 *
NWMN_2421	NADH-flavin oxidoreductase	1.28 *	1.17	1.39 *	1.85 *	1.74 **	2.47 *	2.2 **	1.89 *	1.85 *	1.73 *
dnaA	chromosomal replication initiator protein DnaA	1.26 *	1.48 *	1.76 *	2.46 *	1.18 *	1.84 *	1.37 *	1.82 *	1.84 **	1.81 *

NWMN_2239	aldose 1-epimerase precursor	1.38 *	1.76 *	1.54 *	1.76 **	1.68 **	2.37 *	1.82 *	2.45 **	2.10 **	1.84 **
NWMN_0912	similar to menaquinone-specific isochorismate	1.17 **	1.76 *	2.35 **	2.44 *	1.67 *	1.53 *	1.27 *	1.29 **	1.80 **	1.74 *
NWMN_2607	hypothetical protein	1.48	1.61 *	2.39 *	1.52	1.87 *	0.74 **	0.92 **	1.81 *	1.41 *	1.37 *
metB	cystathionine gamma-synthase	1.28 †	1.51 *	2.38 *	1.51 *	0.95 **	1.03 †	1.33 †	0.97 **	2.01 *	1.44 †
NWMN_2186	acyl-CoA dehydrogenase-related protein	1.33 *	1.09	1.92 *	1.60 *	1.35 *	2.38 *	2.22 **	1.99 **	1.51 *	1.57 *
NWMN_0944	similar to ABC transporter ATP-binding protein	1.3 **	2.16 **	2.37 **	1.89 **	1.54 **	1.91 **	1.82 **	2.21 **	2.01 **	1.21 *
NWMN_0800	haloacid dehalogenase-like family protein	1.27 *	1.12	1.50 *	2.34 *	0.89 †	1.23	0.95	1.36 *	2.17 *	2.35 *
NWMN_1888	tail tape measure protein for bacteriophage phiNM3	1.23 *	1.39 *	2.00 *	1.32 *	1.36 *	1.53 *	1.92 **	1.29 *	2.18 *	2.35 *
NWMN_2304	hypothetical protein	2.04	1.17 †	1.12 †	1.62	1.00 †	1.03 †	1.09 †	2.35	1.76	1.07 †
treC	C alpha-phosphotrehalase	1.58 *	1.93 *	1.83 *	1.97 *	1.59 *	1.38 *	1.16	2.21 *	2.33 *	2.02 *
NWMN_0561	hypothetical protein	1.25 *	1.32 *	2.30 *	1.61 *	1.00 †	1.51 *	1.54 *	1.41 *	2.26 *	1.45 *
NWMN_0249	nucleotidase lipoprotein family protein	1.37	1.88 *	0.79 **	0.54 **	1.01 †	1.23 †	1.24 †	2.30 *	1.25 †	0.90 †
NWMN_0777	hypothetical protein	1.33 *	1.70 *	1.76 *	1.65 *	1.47 *	1.97 *	1.90 *	2.30 **	1.33 **	1.56 *
moeA	molybdopterin biosynthesis protein MoeA	1.49 *	1.70 *	2.14 *	2.29 *	1.47 **	1.61 *	1.74 *	1.43 **	1.94 **	1.91 *
NWMN_0115	hypothetical protein	1.42	1.70	1.66	1.85 *	1.92 *	1.05	1.00	1.74	2.28 *	1.34
narH	nitrate reductase beta chain	1.15	2.25	1.23	1.26	0.92	0.65	1.30	1.23	1.12	1.08
NWMN_0256	hypothetical protein	1.79	0.89	1.60	2.24	1.85	0.92	1.26	1.86	1.96	1.23
mvaS	3-hydroxy-3-methylglutaryl coenzyme A synthase	1.39 *	2.01 *	1.43 **	2.24 *	1.73 **	1.67 **	1.53 **	2.05 **	1.97 **	1.58 **
NWMN_0943	similar to cobalt transport protein	1.32 *	1.51 **	2.24 **	1.95 *	1.19 *	1.59 **	1.56 **	1.42 *	1.91 *	1.34 *
NWMN_2386	similar to helicase	1.21 *	1.62 *	1.25 *	1.94 *	1.36 *	2.13 *	1.53 *	1.54 **	2.21 *	1.76 *
NWMN_0223	hypothetical protein	1.31 *	1.35 *	1.81 *	1.75 *	1.21 *	2.12 *	2.21 *	1.74 **	1.71 **	1.40 *
NWMN_2447	methylated-DNA-protein-cysteine methyltransferase	1.23 *	1.39 *	1.71 *	2.20 *	1.17 *	1.21 *	1.33 *	1.38 *	1.59 *	1.64 *
NWMN_2240	hypothetical protein	1.29 *	1.60 *	1.74 *	1.42 *	1.81 *	1.56 *	1.48 *	2.20 **	1.75 **	1.25 **
narG	nitrate reductase alpha subunit	1.27	2.04	1.28	1.29	1.61	1.30	2.18	1.44	1.47	1.05
NWMN_2392	hypothetical protein	1.37 *	1.31 *	1.87 *	1.60 *	1.46 **	1.70 *	2.00 *	2.07 *	2.18 **	1.94 *
NWMN_2241	hypothetical protein	1.16 *	1.36 *	1.81 *	2.02 *	1.52 *	2.08 *	1.92 *	1.84 *	2.17 *	1.68 *

NWMN_0114	cation efflux family protein	1.26	1.51 *	1.63 *	1.21	1.80 *	1.45 *	1.15	1.29	2.15 *	1.66 *
queC	7-cyano-7-carbaguanine synthase	1.32 *	1.72 *	1.79 *	1.51 *	1.70 *	2.12 *	1.38 *	1.52 *	2.05 *	1.31 *
NWMN_1990	hypothetical protein	1.21	2.12 *	1.56	1.51	1.35	1.10	1.29	1.35	1.67	1.15
sbcD	exonuclease SbcD	1.2 *	2.12 *	2.09 **	1.77 **	1.35 **	1.40 *	1.17 *	1.56 *	1.67 **	1.52 *
modC	molybdenum ABC transporter ATP-binding protein	1.39 *	1.49 *	1.19	1.47 *	1.27	1.77 *	2.09 *	1.44 *	1.76 *	1.59 *
NWMN_0119	hypothetical protein	1.24	1.42	2.09 *	0.90 †	0.99	1.37	1.38	1.83 *	1.69	1.69
modB	molybdenum ABC transporter permease protein	1.09 †	1.05 †	1.50 *	1.17 *	1.05 †	1.11 †	1.55 *	1.14 *	1.39 *	2.06 *
NWMN_2253	drug resistance transporter EmrB QacA subfamily protein	1.35 *	1.46 *	1.39 *	2.05 *	1.58 *	1.34 *	1.11	1.73 *	1.87 *	1.50 *
NWMN_2185	iron compound ABC transporter iron compound-binding protein	1.22	1.50	1.10	1.68	2.04	0.91 †	0.82 †	1.68	1.40	1.17
NWMN_1035	N-acetylglucosamidase for bacteriophage phiNM2	1.32 *	1.62 *	1.59 *	1.48 *	1.38 *	1.38 *	2.00 *	1.46 *	1.13	1.83 *
NWMN_0945	hypothetical protein	1.51 *	1.93 **	1.44 *	1.99 **	1.57 *	1.74 **	1.53 **	1.73 **	1.86 **	1.86 **
NWMN_0151	similar to ABC transporter ATP-binding protein	1.66	1.13 †	1.45 †	1.26 †	0.81 †	1.00 †	0.71 †	1.45	1.96	1.87 †
NWMN_2489	hypothetical protein	1.24 *	1.50 *	1.51 *	1.71 *	1.28 *	1.13	1.15 **	1.72 *	1.94 *	1.33 *
NWMN_1691	hypothetical protein	1.62	1.30	1.26 †	1.88	1.93	1.34	0.91 †	1.06 †	0.96 †	0.77 †
NWMN_1584	hypothetical protein	1.46 *	1.49 *	1.92 *	1.73 *	0.90 **	1.19 *	1.22 *	1.69 *	1.49 *	1.12
moaB	molybdopterin precursor biosynthesis	1.3 *	1.11 *	1.91 *	1.58 *	1.35 *	1.20 *	1.27 *	1.47 *	1.57 **	1.06 *
hsdR	type-I restriction-modification system restriction endonuclease subunit	1.24	1.57 *	1.12	1.49 *	1.37	1.50 *	1.55 *	1.52 *	1.39	1.89 *
NWMN_0387	hypothetical protein	1.46	1.01 †	1.13	1.23	1.86	1.13	1.38	1.04	0.93 †	1.01
NWMN_0419	hypothetical protein	1.46 *	1.42	1.05 †	1.41	1.54 *	1.78 *	1.83 *	0.79 **	1.31 †	1.15 †
htrA	serine protease HtrA	1.19 *	1.29 *	1.46 *	1.54 **	1.50 *	1.45 *	1.21 *	1.58 **	1.67 **	1.83 *
NWMN_0413	hypothetical protein	1.16 *	1.58 *	1.6 *	1.80 *	1.34 *	1.79 *	1.63 **	1.30 **	1.58 **	1.43 **
azoR	acyl carrier protein phosphodiesterase	1.2 †	1.03 †	1.46 †	0.81 **	1.42	1.16 †	1.38 †	1.80 *	0.95 **	1.35 †
thil	thiamine biosynthesis protein Thil	1.14	1.32	1.00 †	1.44	1.47	1.42	1.30 †	1.51	1.75 *	1.11
NWMN_0375	hypothetical protein	1.11	1.52 *	1.46 *	1.27	1.06	1.37 *	1.35 *	1.16	1.72 *	1.30 *
NWMN_0615	hypothetical protein	1.26	1.49 *	1.69 *	1.56 *	1.29	0.89 †	0.97 †	1.25	1.41 *	1.46 *
narJ	respiratory nitrate reductase delta subunit	1.66	1.10	1.17	0.47 †	0.65 †	0.57 †	0.69 †	1.09	1.05	0.89

fda	fructose-bisphosphate aldolase class-I	1.29 *	1.12 *	1.42 *	1.40 *	1.03	1.47 *	1.59 *	1.65 *	1.58 *	1.24 *
NWMN_0705	ferrichrome ABC transporter lipoprotein	1.43	1.35	1.25	1.27	1.51	0.69 †	0.99 †	1.50	1.63 *	1.53
NWMN_0172	hypothetical protein	1.26 *	1.58 *	1.60 *	1.25 *	1.06	1.23	1.27 *	1.48 *	1.11 †	0.99 †
pdxS	pyridoxine biosynthesis protein	1.31	1.20	1.14 †	1.02 †	1.16 †	1.54 †	1.45 †	1.17 †	1.20 †	0.99 †
spa	immunoglobulin G binding protein A precursor	1.44	0.79 †	0.64 †	0.57 †	1.19 †	1.25 †	1.5 †	1.14 †	0.83 †	0.70 †
ackA	acetate kinase	1.23	1.37 *	1.28 *	1.04 †	1.41 *	1.48 *	1.17 †	1.34 *	1.30 *	1.16
pdxT	similar to SNO glutamine amidotransferase	1.3	1.25	1.35 †	0.83 **	1.17 †	1.34 †	1.20 †	1.25 †	1.03 †	1.10 †

NsaSR upregulated, VraSR regulated

NWMN_2223	hypothetical protein	1.16 **	1.53 **	7.20 **	13.41 **	2.51 **	2.39 **	3.14 **	3.22 **	4.52 **	4.51 **
NWMN_1333	phosphotransferase system glucose-specific IIA component	1.19 **	1.56 **	5.64 **	10.84 **	1.82 **	3.58 **	3.42 **	1.55 **	2.44 **	3.66 **

NsaSR upregulated, WalkR regulated

clpB	ATP-dependent Clp protease ATP-binding subunit	1.44 **	1.59 **	8.96 *	36.5 *	8.82 **	24.43 **	32.7 **	1.75 **	2.33 **	1.87 **
ilvA (ilvA1)	threonine dehydratase	1.26 **	1.69 **	5.24 *	8.49 *	3.47 **	3.15 **	3.91 **	1.39 **	3.75 *	5.75 **
NWMN_2590	transcriptional regulator PadR-like family protein	1.28 **	1.19 **	1.87 **	3.50 **	1.99 **	4.2 **	5.34 **	1.54 **	1.88 **	1.71 **
pyrAB	carbamoyl-phosphate synthase pyrimidine-specific large chain	1.77	1.90	0.97	0.73 †	2.01 *	4.64 *	4.26 *	2.29 *	1.55	1.65
glpQ	glycerophosphoryl diester phosphodiesterase	1.43 *	1.61 *	1.75 *	1.60 *	1.36 *	1.00 †	1.65 *	1.62 *	2.47 *	1.63 *
NWMN_1689	hypothetical protein	1.33	1.18 †	1.82 *	2.45 *	1.54	1.38	1.46	1.83 *	2.05 *	1.34
NWMN_1688	hypothetical protein	1.70 *	1.06 †	1.85 *	2.12 *	1.04	1.44 †	1.56 *	1.56 *	1.52	1.07 †
NWMN_1070	similar to fibrinogen-binding protein	1.28 *	1.46 *	1.30 *	1.62 *	1.31 *	1.65 *	1.84 *	0.88 †	1.60 *	1.34 *

NsaSR downregulated

NWMN_1916	hypothetical protein	1.26 **	2.01 *	3.65 **	2.29 *	3.34 **	3.76 *	3.89 **	9.21 *	2.36 **	3.03 **
NWMN_0089	similar to DNA-binding protein	1.03 **	1.10 **	6.76 *	3.1 *	3.55 *	1.04 **	1.07 **	1.09 **	1.05 **	1.07 **

capE	capsular polysaccharide biosynthesis protein CapE	1.34 **	1.67 **	3.85 *	3.55 **	1.38 **	1.8 *	2.26 **	1.59 **	6.62 **	6.69 *
capI	capsular polysaccharide biosynthesis protein CapI	1.21 **	2.42 *	6.08 *	3.63 *	3.62 *	1.74 *	1.87 *	2.02 **	3.12 **	2.78 **
capG	UDP-N-acetylglucosamine 2-epimerase	1.26 *	1.57 *	2.96 *	2.96 **	1.92 **	1.00 *	1.97 **	1.34 *	5.42 **	4.39 *
NWMN_1828	hypothetical protein	1.72 *	0.98 †	2.17 *	0.86 †	2.67 *	3.75 *	1.56 *	5.22 *	2.47 *	1.57 *
sspB	staphopain thiol proteinase	1.37 *	2.34 *	4.13 *	1.34	4.86 *	1.84 *	1.69 *	3.92 *	2.51 *	1.54 *
capL	capsular polysaccharide biosynthesis protein glycosyltransferase CapL	1.58 *	4.85 *	3.09 **	3.07 *	1.75 **	3.06 *	2.89 *	2.47 *	3.56 **	3.39 **
capD	dTDP-4-dehydrorhamnose reductase	1.26 **	1.69 **	1.69 **	1.85 **	1.58 **	2.02 **	1.53 **	2.02 **	3.35 **	4.05 **
adhE	iron-containing alcohol dehydrogenase	1.39	1.99 *	2.43 *	2.48 *	1.39	1.50	1.76 *	3.95 *	3.97 *	3.28 *
capH	capsular polysaccharide synthesis enzyme O-acetyl transferase CapH	1.29 **	3.68 *	1.83 *	1.77 **	1.17 *	3.45 *	1.43 *	1.55 *	3.51 *	2.85 **
mnhC	Na-H antiporter component	1.44 *	1.52 *	3.64 *	2.28 *	1.86 *	2.12 *	2.02 **	1.83 **	2.42 **	2.19 **
sepA	Antiseptic resistance protein SepA	1.23 **	1.43 *	2.55 **	2.79 **	1.86 **	1.71 **	2.01 **	2.44 *	2.56 **	2.19 **
NWMN_2407	hypothetical protein	1.17 *	1.51 *	2.06 *	1.73 **	0.98 *	1.34 *	1.11 *	1.34 *	2.76 **	1.85 **
NWMN_0037	similar to LysR family regulatory protein	1.26	0.94 †	2.52 *	2.41 *	2.03 *	2.42 *	1.42	2.13 *	1.41	2.60 *
NWMN_2468	acetyltransferase GNAT family protein	1.19	1.05	1.74 *	1.42	1.25	1.07 †	0.91 †	1.46	2.49 *	1.71 *
sspA	V8 protease glutamyl endopeptidase precursor	1.14	1.90 *	1.81 *	1.40 *	1.52 *	1.25	0.96 †	2.47 *	1.53 *	1.60 *
hysA	hyaluronate lyase precursor	1.47 *	1.82 *	1.77 *	2.31 *	1.30 *	1.66 *	1.87 *	1.91 **	2.00 **	2.47 **
NWMN_1397	hypothetical protein	1.71 *	1.11	2.46 *	2.20 *	1.31 *	1.42 *	1.35 *	2.13 *	2.05 **	1.70 *
capO	UDP-N-acetyl-D-mannosaminuronic acid dehydrogenase	1.38 *	0.77 **	1.56 *	1.67 *	1.43 *	0.89 †	1.30	1.37 *	1.86 *	1.29
NWMN_0704	ABC transporter ATP-binding protein	1.74	1.60	0.91 †	1.58	1.30 †	0.85 †	1.08 †	1.20 †	1.84 *	1.32
NWMN_0313	phage amidase for bacteriophage phiNM4	1.34 *	1.37 *	1.36 *	1.57 *	1.36 *	1.31 **	1.28 *	1.27 *	1.31 *	1.44 *
NWMN_1769	amidase for bacteriophage phiNM1	1.25	1.30	1.37	1.07 †	1.12 †	1.03 †	1.23 †	1.26	1.38	1.27

NsaSR downregulated, WalkR regulated

spIC	serine protease SpIC	1.48 *	2.57 *	12.13 *	3.01 **	2.05 **	2.44 *	2.71 **	4.23 **	2.36 **	2.42 *
spIE	serine protease SpIE	1.06 **	6.93 *	4.07 *	4.91 *	11.23 *	2.29 **	1.15 **	4.29 *	1.64 **	2.30 **
spID	serine protease SpID	1.18 **	4.98 *	2.63 *	2.81 *	1.68 **	6.09 *	4.32 *	4.04 *	7.37 *	3.24 *

fnbA	fibronectin binding protein A precursor	1.40	0.78	2.01 *	2.33 *	4.76 *	2.00 *	2.04 **	1.44	2.08 **	1.68 *
splA	serine protease SplA	1.89 *	1.44	1.25 †	1.76 *	1.22	0.95 †	1.86 *	2.01 *	1.42	1.37 †
hly	truncated beta-hemolysin	1.22	1.29	1.58 *	1.18	1.37 *	1.56 *	1.70 *	1.28	1.53 *	1.13

12 **Supp. Table 3: WalkR regulated genes.** The maximal upregulation at any time point for each given condition is reported. Genes
 13 with maximal regulation >3 fold are highlighted in bold red font. Fold changes with significance $p < 0.05$ are marked with asterisks
 14 (*) by Z-factor test and crosses (+) by T-test. Genes are arranged by decreasing maximal upregulation in any of the conditions.

Gene	WalkR regulated Gene description	Control [μ/mL]	PMX30063			Daptomycin			LL16		
			0.39	0.78	1.17	2.0	4.0	6.0	2.0	4.0	6.0
hrcA	heat-inducible transcription repressor	1.27 **	1.17 **	3.19 **	23.52 *	4.40 **	16.07 **	19.77 **	2.91 **	2.44 **	1.73 **
NWMN_0485	UvrB-UvrC motif domain protein	1.41 **	3.24 *	4.16 **	19.86 **	7.30 **	11.44 **	16.9 **	2.05 **	2.11 **	2.74 **
grpE	Hsp-70 cofactor GrpE protein	1.49 **	1.49 **	3.29 *	5.17 **	2.29 **	5.00 **	7.97 **	1.20 *	1.12 **	1.44 *
NWMN_1750	extracellular glutamine-binding protein	1.62 *	3.69 *	3.61 **	7.32 **	3.98 *	2.56 *	0.94	2.04 *	3.35 *	3.85 **
pflA	similar to formate-lyase activating enzyme	1.32	1.44	4.67 *	5.81 *	2.16 *	1.22	1.57	6.41 *	2.36 *	1.53
prmA	ribosomal protein L11 methylase	1.30 **	1.65 **	2.79 **	6.37 **	1.97 **	4.03 **	3.54 **	1.52 **	1.69 **	1.63 **
lytM	peptidoglycan hydrolase	1.24 **	1.57 **	1.96 **	3.18 **	2.66 **	1.81 **	2.58 **	2.73 **	6.36 **	2.85 **
pyrB	aspartate carbamoyltransferase catalytic subunit	1.51	2.85 *	1.31	1.07	1.92 *	6.02 *	4.56 *	1.65 *	1.83 *	1.39
NWMN_1687	hypothetical protein	1.81	2.18 *	3.49 *	4.03 *	5.93 *	2.31 *	1.15	2.30 *	2.67 *	4.28 *
NWMN_1347	amino acid permease	1.94	1.36	1.42	1.31	1.03	0.93	1.21	5.72 *	2.45	1.73
NWMN_0921	ATL autolysin transcriptional regulator	1.20 *	1.68 *	5.45 *	1.57 *	2.19 *	3.32 *	3.07 *	2.12 **	2.80 **	1.52 *
NWMN_0122	hypothetical protein	1.36	3.25 *	2.88 *	3.55 *	2.29 *	2.30 **	1.64 *	1.19	5.44 *	3.45 *
dnaJ	heat shock protein 40	1.24 **	1.23 **	3.16 **	5.43 **	1.84 **	3.22 **	3.97 **	1.67 **	1.83 **	1.71 **
NWMN_0402	hypothetical protein	1.51 *	1.40 *	2.68 *	4.79 **	2.45 *	2.92 **	4.79 **	1.27 *	2.70 **	3.26 **
pyrC	dihydroorotase multifunctional complex type	1.83	2.06 *	1.16	0.72 †	1.91 *	4.16 *	4.67 *	1.89	1.67	1.78
NWMN_0757	secreted von Willebrand factor-binding protein precursor	1.19	0.81 †	1.32 †	1.90	4.52 *	1.36	1.14 †	1.2 †	1.36	1.05 †
NWMN_2443	secretory antigen SsaA homolog	1.54 *	2.14 **	1.80 **	2.18 **	2.98 **	1.98 *	1.43 *	2.46 *	4.35 *	2.08 *
pyrAA	carbamoyl-phosphate synthase small chain	1.89	2.02 *	0.97	0.66 †	2.52 *	3.93 *	4.22 *	1.95	1.89	1.78
NWMN_0423	sodium-dependent symporter protein	1.55 *	2.03 *	2.58 *	4.13 *	2.83 *	2.37 *	1.34	1.85 *	2.83 *	1.54 *
NWMN_1071	hypothetical protein	1.56 *	2.25 *	2.96 **	2.28 *	3.58 **	4.12 *	2.83 *	1.59 **	2.47 **	3.21 **
NWMN_0431	MutT domain containing protein	1.11 **	3.67 *	2.17 *	1.87 **	1.80 **	1.55 **	1.67 **	2.20 **	2.67 **	2.63 *

NWMN_0634	secretory antigen SsaA-like protein	1.43 *	1.28 *	1.85 **	2.55 *	1.80 **	1.33 *	1.40 *	2.51 *	3.53 *	1.72 **
pryF	orotidine 27-phosphate decarboxylase	1.73 *	1.83 *	0.84 †	0.76 †	1.92 *	3.18 *	2.95 *	3.38 *	1.39	1.32
pyrE	orotate phosphoribosyltransferase	1.78 *	1.24	1.45	0.91 †	1.61 *	2.76 *	2.08 *	3.37 *	2.31 *	1.57 *
lukS	leukocidin hemolysin toxin family S subunit	1.48 *	1.51 *	2.41 *	2.27 *	1.81 *	2.85 *	3.36 *	2.58 *	3.23 *	1.87 *
NWMN_1708	hypothetical protein	1.59	1.10 †	1.88	1.53	2.33 *	1.51 †	0.70 †	1.75	3.34 *	1.42
NWMN_0049	similar to Na Pi-cotransporter	1.34 *	1.96 *	1.51 **	2.44 **	1.84 **	1.70 *	1.37 *	2.30 *	3.22 **	1.94 **
NWMN_2090	similar to Zinc-type alcohol dehydrogenase protein	1.51 *	3.21 *	1.60 *	2.41 **	1.48 *	1.99 *	2.58 **	1.51 *	1.72 *	1.31 *
NWMN_0326	MarR family regulatory protein	1.31 **	1.67 *	1.95 **	2.83 **	1.98 *	1.87 *	1.08 *	1.47 **	2.11 **	3.10 **
fmtB	methicillin resistance determinant FmtB protein	1.15 **	1.13 *	1.80 *	3.01 **	1.69 **	2.28 **	3.08 *	1.77 **	2.13 **	2.76 **
NWMN_0724	similar to a protein with LysM domain	1.46	1.60 *	1.84 *	2.65 *	3.01 *	1.56	2.92 *	2.00 *	2.24 **	1.61 *
NWMN_0165	hypothetical protein	1.75 *	1.35 *	2.74 *	2.23 *	2.73 *	2.82 *	2.59 **	1.84 *	2.16 *	2.89 *
NWMN_1667	mannosyl-glycoprotein endo-beta-N-acetylglucosamidase	1.32 *	2.20 *	1.48 *	1.60 *	1.33 *	1.41 *	1.15	1.19	2.88 *	1.35 *
NWMN_0665	hypothetical protein	1.75	1.17 †	1.66	2.86 *	2.56 *	1.10	0.96 †	1.41	2.06 *	1.14 †
lukF	leukocidin hemolysin toxin family F subunit	1.54 *	2.23 *	1.63 *	2.02 *	1.31	2.82 *	2.11 *	2.65 *	2.28 *	1.59 *
clpB	similar to lipopolysaccharide modification acyltransferase	1.14	1.54 *	1.49 *	2.70 *	1.75 *	1.94 *	0.99	1.81 *	2.09 *	1.48 *
NWMN_0362	hypothetical protein	1.46	1.28	1.04	1.33	1.81 *	1.99 *	2.63 *	1.22	1.08	1.35
NWMN_1159	similar to DNA processing protein DprA	1.19 **	2.14 *	1.93 *	1.82 **	1.76 *	2.43 *	1.67 *	1.73 *	2.63 **	1.82 *
NWMN_1068	hypothetical protein	1.33 *	1.00 †	1.53 *	1.17	1.31 *	2.61 *	1.98 *	0.91 †	1.08 †	0.97 †
potA	spermidine putrescine ABC transporter ATP-binding protein	1.50 *	1.26 *	1.68 *	1.81 *	1.55 *	2.22 *	1.82 *	2.16 *	2.48 **	1.57 *
NWMN_0489	N-terminal deoxyribonuclease	1.31 **	2.47 *	1.54 *	2.14 **	1.93 *	1.72 *	1.26 *	1.60 *	2.29 **	1.95 **
NWMN_0157	hypothetical protein	1.57 *	1.28	1.07 †	1.15	2.45 *	2.17 *	1.81 *	1.82 *	1.58 *	1.12
radA	DNA repair protein RadA	1.27 **	2.00 **	1.69 **	2.39 **	1.51 **	1.70 *	1.17 **	1.77 **	1.92 **	2.06 **
ssl11	staphylococcal enterotoxin-like toxin	1.34 †	1.1 †	0.95 **	0.87 **	2.32 *	1.14 †	0.71 **	0.95 **	1.04 †	1.05 †
NWMN_1518	hypothetical protein	1.19 *	1.32 *	1.53 **	2.31 **	1.02 **	1.73 *	1.40 **	1.87 *	1.84 **	2.00 *
NWMN_0432	similar to acetyltransferase GNAT family protein	1.37	1.85 *	1.90 *	2.29 *	1.32	1.88 *	1.84 *	1.48	1.39	2.13 *
sle1	N-acetylmuramoyl-L-alanine amidase aaa precursor	1.27	1.65	1.83 *	2.22 *	1.13 †	0.97 †	0.93 †	1.42	2.19 *	1.50

NWMN_2236	abortive infection protein family protein	1.22 *	1.48 *	1.59 *	1.90 **	2.10 *	1.60 *	1.41 *	1.55 *	2.17 *	1.50 *
NWMN_1751	phosphotransferase system EIIC	1.33 *	1.98 *	1.55 *	1.38 *	1.21	1.17	1.15	1.40 *	2.16 *	0.97 †
NWMN_0123	similar to surfactin synthetase	1.12 **	1.28 *	1.66 **	2.11 **	1.06 *	1.47 *	1.23 *	1.33 **	1.71 **	2.01 **
NWMN_0964	similar to transcriptional regulator	1.48 *	0.98 †	1.22	1.32 *	1.85 *	1.45 *	1.61 *	1.95 *	2.05 *	1.82 *
NWMN_1066	similar to fibrinogen-binding protein	1.41	1.10	1.48	1.65 *	1.29	1.34	1.26	1.20	1.34	1.17
geh	truncated triacylglycerol lipase precursor	1.21	1.39 †	1.03 †	0.63 **	0.90 †	1.56 †	1.38 †	1.51	1.01 †	0.97 †
vicR (walR)	response regulator protein	1.21 *	1.32 *	1.54 *	1.36 *	1.17 *	1.09	1.25 *	1.23 *	1.26 *	1.52 *
secDF	preprotein translocase component SecDF	1.32 *	1.26 *	1.11	1.20 *	1.11	1.18	1.02 †	1.23 *	1.54 *	1.17
flr	formyl peptide receptor-like 1 inhibitory protein	1.36	0.92 †	0.76 †	1.45 †	0.87 †	1.47 †	0.95 †	1.37 †	0.61 **	0.94 †

WalkR/ SaeSR regulated

spIF	serine protease SpIF	1.85 *	1.12	7.57 *	1.44 *	1.09	7.69 *	5.48 *	3.23 *	3.23 *	12.9 *
hlgA	gamma-hemolysin component A	1.71 *	1.43	4.99 *	12.03 *	4.17 *	5.82 *	8.04 *	4.07 *	6.12 *	6.17 *
hlgC	gamma-hemolysin component C	1.48	2.29 *	3.38 *	6.52 *	3.27 *	4.01 *	3.81 *	1.93 *	2.24 *	2.17 *
hlgB	gamma hemolysin component B	1.67	1.90	3.40 *	4.95 *	3.11 *	4.11 *	5.61 *	1.99	1.80	2.54 *
spIB	serine protease SpIB	1.58 *	3.32 *	4.25 **	2.47 *	1.43 *	2.48 *	2.67 *	3.34 **	1.4 **	5.34 *
fnbB	fibronectin binding protein B precursor	1.30	0.90	2.13 *	2.01 *	3.52 *	2.65 *	2.49 **	2.01 *	2.28 **	1.62 *
coa	coagulase precursor	1.13	1.12	1.23	1.58	3.24 *	2.04 *	1.70	1.23	1.95 *	1.41
NWMN_0677	hypothetical protein	1.47 *	1.20	1.20	2.58 *	1.96 *	2.22 *	2.56 *	1.27 *	1.68 *	1.61 *
chp	chemotaxis-inhibiting protein CHIPS	1.35 †	2.17 *	1.20 †	0.71 **	0.66 **	1.09 **	1.04 **	2.57 *	0.93 **	1.18 †
hla	alpha-hemolysin precursor	1.22	1.43	1.76	1.95	2.06	1.22	1.25	1.66	1.16	1.15
sbi	immunoglobulin G-binding protein Sbi	1.25	1.24	1.70 *	1.13	1.23	1.81 *	1.94 *	1.30	1.65 *	1.53 *
saeR	DNA-binding response regulator SaeR	1.40 *	1.03	1.68 *	1.78 *	1.37 *	1.64 *	1.46 *	1.65 *	1.54 **	1.56 **
saeS	sensor histidine kinase SaeS	1.27 *	1.10 *	1.53 *	1.5 *	1.25 *	1.63 *	1.34 *	1.43 *	1.56 *	1.40 *
NWMN_0676	hypothetical protein	1.32 *	1.44 *	1.58 *	1.51 *	1.52 *	1.51 *	1.28 *	1.24 *	1.47 *	1.58 **
efb (fib)	similar to fibrinogen-binding protein	1.20	1.00 †	1.23	1.42 *	1.39 *	1.51 *	1.37 *	1.22	1.33 *	1.23

scn	staphylococcal complement inhibitor SCIN	1.43	1.46	0.89 *	1.09 *	1.30 *	1.05 *	0.92 *	1.18	1.38	1.15
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16 **Supp. Table 4:** Oligonucleotides used for this study.

#	Primer	Description	Sequence
1	3Sol_N	Random hexamer (N) + adapter for RNAseq cDNA synthesis	5'- GCTCTCCGATCTNNNNNN - 3'
2	3Sol	amplification of RNAseq cDNA library	5' - GCTCTCCGATCT - 3'
3	SolM1	generation of Illumina library	5' - AATGATACGGGCGACCACCGAGATCTACACTCTTTCCTACACGACGCTCTCCGATCT - 3'
4	SolM2	barcoding of Illumina library (barcode nucleotide 'X')	5' - CAAGCAGAAGACGGCATAACGAGATXXXXXXXXGTGACTGGAGTTCAGACGTGTGCTCTCCGATCT - 3'
5	5SolM1_1 8	Hot-start primer for amplification of Illumina library	5' - AATGATACGGGCGACCACC - 3'
6	5SolM2_1 9	Hot-start primer for amplification of Illumina library	5' - CAAGCAGAAGACGGCATAAC - 3'

