

Supplementary Materials: Microarray-Based Screening of Differentially Expressed Genes of *E. coli* O157:H7 Sakai during Preharvest Survival on Butterhead Lettuce

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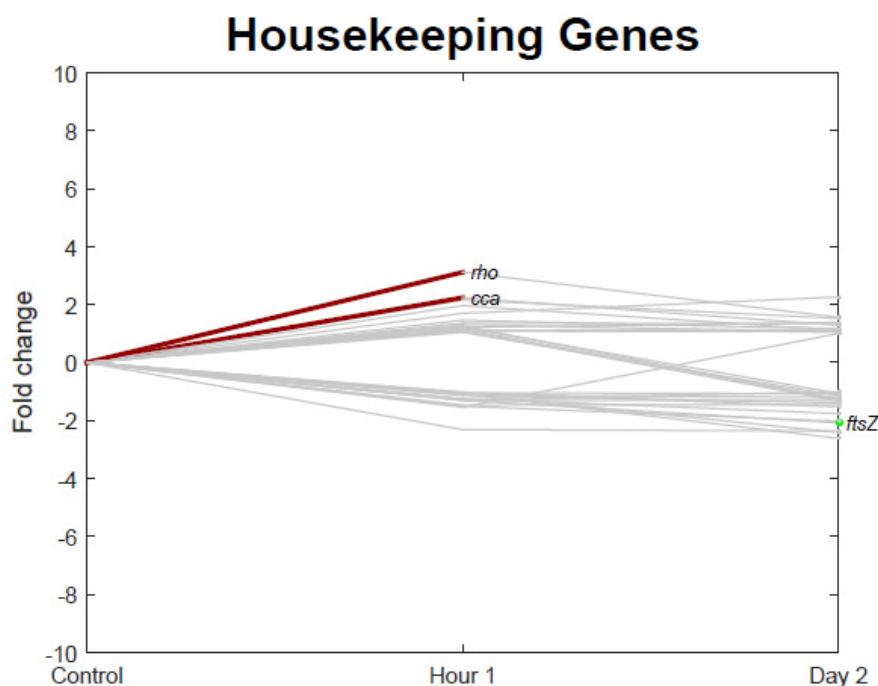


Figure S1. Relative expression of *E. coli* O157:H7 Sakai housekeeping genes as determined by Rocha *et al.* (2015) and Zhou *et al.* (2011) [1,2]. A colored line between the control and hour 1 shows that a particular gene was significantly differently expressed one hour after inoculation on the lettuce in comparison with the inoculum. A colored line between hour 1 and day 2 shows that the gene expression of a particular gene was significantly different between these two time points. Colored dots at day 2 show the genes which were significantly differently expressed on day 2 in comparison with the control. Light green: downregulation at $0.01 \leq P < 0.05$, dark green: downregulation at $P < 0.01$, light red: upregulation at $0.01 \leq P < 0.05$, dark red: upregulation at $P < 0.01$. Grey: no significant difference in expression. Data represent the mean of four biological replicates.

Table S1. List of 31 housekeeping genes as determined by Rocha *et al.* (2015) [1] and Zhou *et al.* (2011) [2] used for Figure S1.

Primary Accession	Gene Name
b0095	<i>ftsZ</i>
b0098	<i>secA</i>
b0427	<i>yajR</i>
b0474	<i>adk</i>
b0912	<i>ihfB</i>
b2231	<i>gyrA</i>
b2519	<i>pbpC</i>
b2536	<i>hcaT</i>
b2566	<i>era</i>
b2699	<i>recA</i>
b3009	<i>yghB</i>
b3056	<i>cca</i>
b3064	<i>ygjD</i>
b3066	<i>dnaG</i>
b3067	<i>rpoD</i>
b3281	<i>aroE</i>
b3295	<i>rpoA</i>
b3368	<i>cysG</i>
b3449	<i>ugpQ</i>
b3648	<i>gmk</i>
b3699	<i>gyrB</i>
b3744	<i>asnA</i>
b3783	<i>rho</i>
b3940	<i>metL</i>
b3952	<i>pflC</i>
b3987	<i>rpoB</i>
b3988	<i>rpoC</i>
b4323	<i>uxuB</i>
b4324	<i>uxuR</i>
ECs4190	<i>tuf</i>

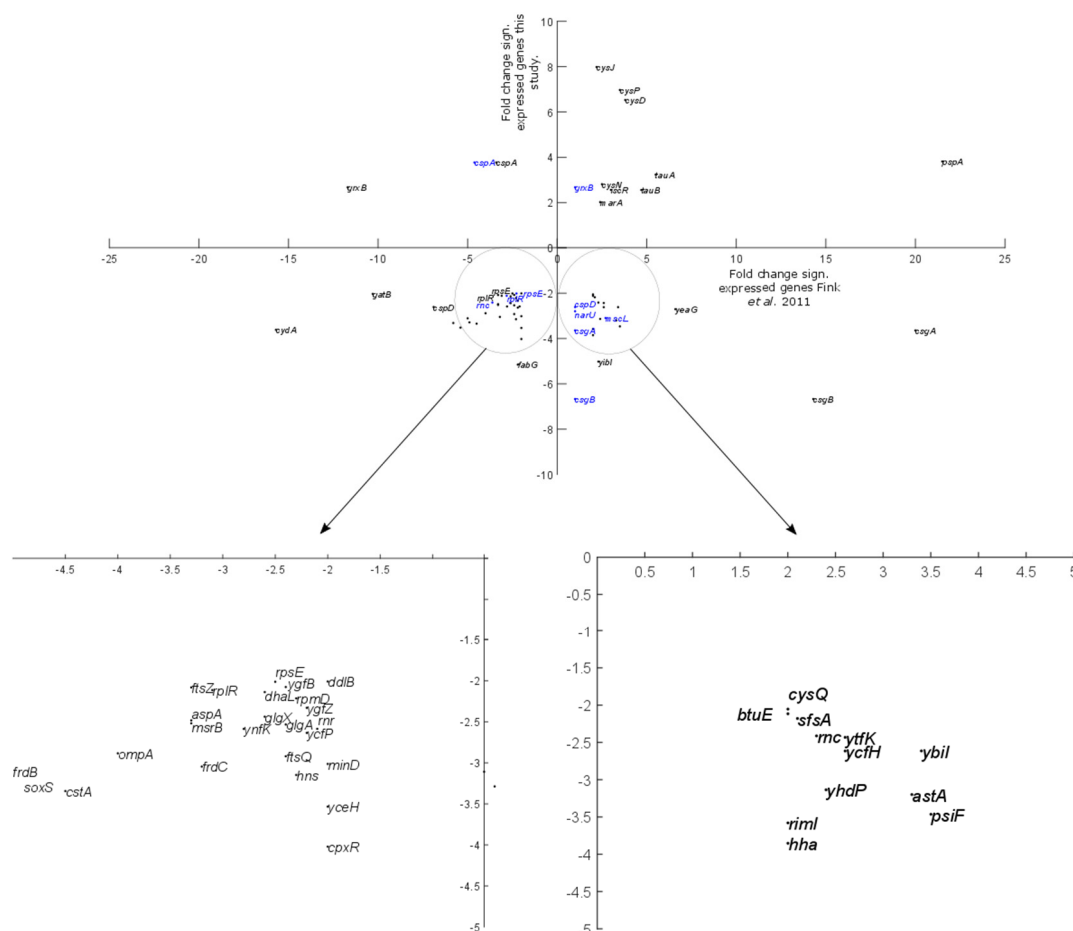


Figure S2. Scatterplot of common significantly differently regulated genes in this study and the study of Fink *et al.* (2012) [3]. The data of table 5 in Fink *et al.* for *E. coli* O157 genes ($p < 0.01$) and the supplemental table 1 for *E. coli* K12 ($p < 0.05$) were compared with the significantly regulated genes at day 2 in this study ($p < 0.05$). The comparison was based on gene name. The *E. coli* O157 comparison is plotted in blue and the K12 comparison in black. Detail figures for the K12 comparison were made.

References

1. Rocha, D.J.; Santos, C.S.; Pacheco, L.G. Bacterial reference genes for gene expression studies by RT-qPCR: Survey and analysis. *Antonie Van Leeuwenhoek* **2015**, *108*, 685–693.
2. Zhou, K.; Zhou, L.; Lim, Q.E.; Zou, R.; Stephanopoulos, G.; Too, H.-P. Novel reference genes for quantifying transcriptional responses of *Escherichia coli* to protein overexpression by quantitative PCR. *BMC Mol. Biol.* **2011**, doi: 10.1186/1471-2199-12-18.
3. Fink, R.C.; Black, E.P.; Hou, Z.; Sugawara, M.; Sadowsky, M.J.; Diez-Gonzalez, F. Transcriptional responses of *Escherichia coli* K-12 and O157:H7 associated with lettuce leaves. *Appl. Environ. Microbiol.* **2012**, *78*, 1752–1764.



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