

**Table S1:** Bacterial strains and plasmids used in this study

Strains		
Name	Properties	Origin
MG1655	F-, <i>ilvG</i> , <i>rph1</i>	(Jin and Gross, 1988)
CF18005	MG1655 $\Delta relA$ 256 (CF12510)	(Potrykus et al., 2011)
CF18011	MG1655 SpoT E319Q zib563::tn10 (CF15523)	(Harinarayanan et al., 2008)
LFC1204	MG1655 <i>crp5</i> ::Cm pHA7	This study
LFC1206	CF18005 <i>crp5</i> ::Cm pHA7	This study
LFC1208	CF18011 <i>crp5</i> ::Cm pHA7	This study
LFC1209	MG1655 <i>fruR</i> ::Km	This study
LFC1211	CF18005 <i>fruR</i> ::Km	This study
LFC1213	CF18011 <i>fruR</i> ::Km	This study
LFC1210	MG1655 <i>mlc</i> ::Km	This study
LFC1212	CF18005 <i>mlc</i> ::Km	This study
LFC1214	CF18011 <i>mlc</i> ::Km	This study
CF6270	MG1655 $\Delta cyaA$ <i>ilvC</i> ::Tn10 Tc <sup>R</sup>	Cashel Lab
CF6271	MG1655 <i>crp5</i> ::Cm	Cashel Lab
LFC1391	MG1655 <i>dauA</i> ::Km	This study
LFC1392	CF18005 <i>dauA</i> ::Km	This study
LFC1393	CF18011 <i>dauA</i> ::Km	This study
LFC1394	MG1655 <i>dctA</i> ::Km	This study
LFC1395	CF18005 <i>dctA</i> ::Km	This study
LFC1396	CF18011 <i>dctA</i> ::Km	This study
LFC1397	MG1655 <i>yaaH</i> ::Km ( <i>satP</i> )	This study
LFC1398	CF18005 <i>yaaH</i> ::Km ( <i>satP</i> )	This study
LFC1399	CF18011 <i>yaaH</i> ::Km ( <i>satP</i> )	This study
LFC1304	MG1655 <i>ackA</i> ::Km	This study
LFC1306	CF18005 <i>ackA</i> ::Km	This study
LFC1308	CF18011 <i>ackA</i> ::Km	This study
LFC1303	MG1655 <i>pta</i> ::Km	This study
CF18006	MG1655 $\Delta relA$ SpoT R39A zib563::tn10 (CF17956)	(Harinarayanan et al., 2008)
CF18565	MG1655 $\Delta ackA$ $\Delta pta$ zej223::tn10	This study
Plasmids		
Name	Properties	Origin
pHA7	Ap <sup>R</sup> , pBR322-CRP (without <i>crp</i> promoter)	(Aiba et al., 1982)

## **References**

- Aiba, H., Fujimoto, S., and Ozaki, N. (1982). Molecular cloning and nucleotide sequencing of the gene for *E. coli* cAMP receptor protein. *Nucleic Acids Res.* 10, 1345–61.
- Harinarayanan, R., Murphy, H., and Cashel, M. (2008). Synthetic growth phenotypes of *Escherichia coli* lacking ppGpp and transketolase A (*tktA*) are due to ppGpp-mediated transcriptional regulation of *tktB*. *Mol. Microbiol.* 69, 882–94. doi:10.1111/j.1365-2958.2008.06317.x.
- Jin, D. J., and Gross, C. A. (1988). Mapping and sequencing of mutations in the *Escherichia coli* *rpoB* gene that lead to rifampicin resistance. *J. Mol. Biol.* 202, 45–58. doi:10.1016/0022-2836(88)90517-7.
- Potrykus, K., Murphy, H., Philippe, N., and Cashel, M. (2011). ppGpp is the major source of growth rate control in *E. coli*. *Environ. Microbiol.* 13, 563–75. doi:10.1111/j.1462-2920.2010.02357.x.