



b

TU	Strand	Known TSS	Detection	Reads	Regulation	Lrp ChIP-chip
<i>ilvIH</i>	+	85,394		0		
<i>ilvIH</i>	+	85,420		0		
<i>ilvIH</i>	+	85,534		0		
<i>ilvIH</i>	+	85,597	85,597	10	+	2.167
<i>serC-aroA</i>	+		956,802	170		
<i>serC-aroA</i>	+	956,818	956,818	235	+	1.348
<i>dadAX</i>	+	1,236,732	1,236,732	4	-	2.628
<i>dadAX</i>	+	1,236,748	1,236,748	76	-	2.628
<i>dadAX</i>	+	1,236,761	1,236,761	11	-	2.628
<i>stpA</i>	-		2,796,550	230		
<i>stpA</i>	-	2,796,558	2,796,558	315	+	4.504
<i>stpA</i>	-	2,796,578	2,796,578	37		
<i>stpA</i>	-	2,796,600	2,796,600	6		
<i>gcvTHP</i>	-		3,048,789	62		
<i>gcvTHP</i>	-	3,048,794	3,048,794	283	+	3.495
<i>serA</i>	-	3,056,478	3,056,478	57	+	3.511
<i>serA</i>	-	3,056,571		0	-	3.511
<i>gltBDF</i>	+	3,352,531	3,352,531	1,100	+	1.838
<i>gltBDF</i>	+		3,352,544	700		
<i>gltBDF</i>	+		3,352,583	87		
<i>livKHMGF</i>	-		3,595,627	181		
<i>livKHMGF</i>	-		3,595,638	1,051		
<i>livKHMGF</i>	-	3,595,753	3,595,753	1,230		
<i>livKHMGF</i>	-	3,595,778	3,595,778	214	-	3.396
<i>ilvL</i>	+	3,948,241	3,948,241	5		
<i>ilvL</i>	+	3,948,313	3,948,313	1,007	+	1.710
<i>lysU</i>	-	4,352,820	4,352,820	160		
<i>lysU</i>	-	4,352,828		0	-	4.419
<i>fimAICDFGH</i>	+	4,540,717		0	+	3.376
<i>fimAICDFGH</i>	+		4,541,107	23		
<i>osmY</i>	+	4,609,176	4,609,176	215	-	2.797
<i>osmY</i>	+		4,609,257	1,213		
<i>osmY</i>	+		4,609,269	223		
<i>osmY</i>	+		4,609,356	708		
<i>osmY</i>	+		4,609,391	172		
<i>livJ</i>	-		3,597,715	103		
<i>livJ</i>	-	3,597,785	3,597,785	724	-	3.635

Supplementary Figure 8 | Use of alternative TSSs. (a) The *serA* gene, *serC-aroA* operon, and *gltBDF* operon have multiple experimentally verified TSSs. We detected the dominant TSS (3,056,478) for the *serA* promoter, which is highly activated by the transcription factor Lrp. Another experimentally confirmed TSS (3,056,571) is likely to be utilized less under this growth condition. The transcription factor Lrp also activates one experimentally verified TSS (956,818) of the *serC* promoter, which was detected as a

dominant TSS in this study. In addition, we found another TSS (956,802) at the *serC* promoter. The other previously confirmed TSS (3,352,531) at the *glbB* promoter was detected as a dominant TSS with Lrp-binding signal. **(b)** List of TSSs regulated by the transcription factor Lrp. We observed the alternative TSSs at the various promoter regions regulated by Lrp.