The genes of the sulphoquinovose catabolism in *Escherichia coli* are also associated with a previously unknown pathway of lactose degradation

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Table S1. *Escherichia coli* strains and plasmids used in this study

Strains	Description	Reference
K-12 MG1655	Wild type F- lambda- *ilvG*- *rfb*-50 *rph*-1	47
M182	*Δlac* derivative of K-12 MG1655	40
MG1655Δ*yihW*	*ΔyihW* derivative of K-12 MG1655	This work
MG1655Δ*crp*	*Δcrp* derivative of K-12 MG1655	48
M182Δ*yihW*	*ΔyihW* derivative of M182	This work
M182Δ*crp*	*Δcrp* derivative of M182	49
BL21*(DE3)	F- *ompT hsdSB* (rB-mB-) *gal* dcm *rne*131 (DE3)	50
Plasmids		
pET_CRP	Vector based on pET28b (Invitrogen) overproducing the CRP protein, Kan^R	This work

Table S2. Oligonucleotide primers used in this study.

Primer name	Primer sequence (5'-3')
yihU/V_F	CGTTCACATCAAAGACGCGA
yihU/V_R	GTCGGTAACCCTTCCACGTA
yihV/W_F	TCAACCGGCCTTCAAAGTTG
yihV/W_R	GCGATCAGCATGAGGAGTTG
yihS/R_F	AGCTGGATGCGGACAATAAG
yihS/R_R	GGCATCTCTTCGGGTTTGTG
yihW_RT	CCGTATTAACGACGCTGGAA
yihW_PCR	GCCGAGCGTGGGTATATGAA
yihV_RT	TCATCACCTACGCGACCAAT
yihV_PCR	TTCGTGTTGCTTGTGTAGGT
yihU_RT	GGAGTCGCACCTTTGTCTAC
yihU_PCR	CGCGTTTATCGGTTTAGGAC
yihT_RT	ATTGTTGATCTACCAGAATCG
yihT_PCR	CGAAGCCATGCGCATGATGT
yihS_RT	CCGTGATCAACCAACGAGTA
yihS_PCR	GGTTTTGGCTGGTTAGGCAA
hns_RT	ATTTAACGGCAGCAAGGCTATT
hns_PCR	GAAGTTGAAGAGCGCACTCG
hns_Bgl_263	AGGGAGATCTCGTAAACACAACTA
hns_Xba	GTTGTCTAGAATTTTAAGTGCTTCG
CRP_NdeI	ACCGCATATGGTGCTTGGCAAACCGCAA
CRP_Bpu1102	CCACGCTGAGCGGATTAACGAGTGCCGTA

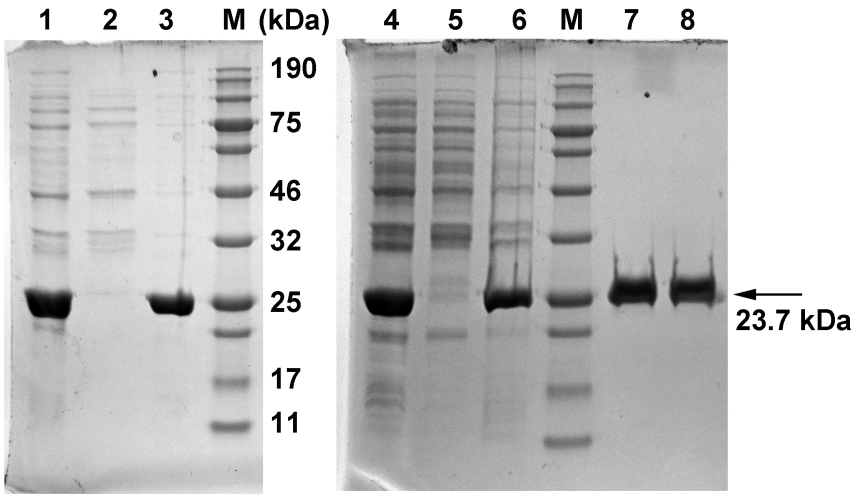

Fig. S1. CRP induction and purification steps. 1 and 4 – total lysate after 16h induction with 20μM IPTG; 2 – soluble fraction; 3 – insoluble fraction; 5 – flow-through after loading of the final lysate (shown on lane 6) onto a column with cAMP-agarose; 6 – cleared cell lysate after treatment with BugBuster reagent (Novagen) followed by sonication; 7 and 8 – pure CRP eluted with 5mM cAMP. Blue prestained protein ladder (11-190 kDa, New England Biolabs) was used as a standard.

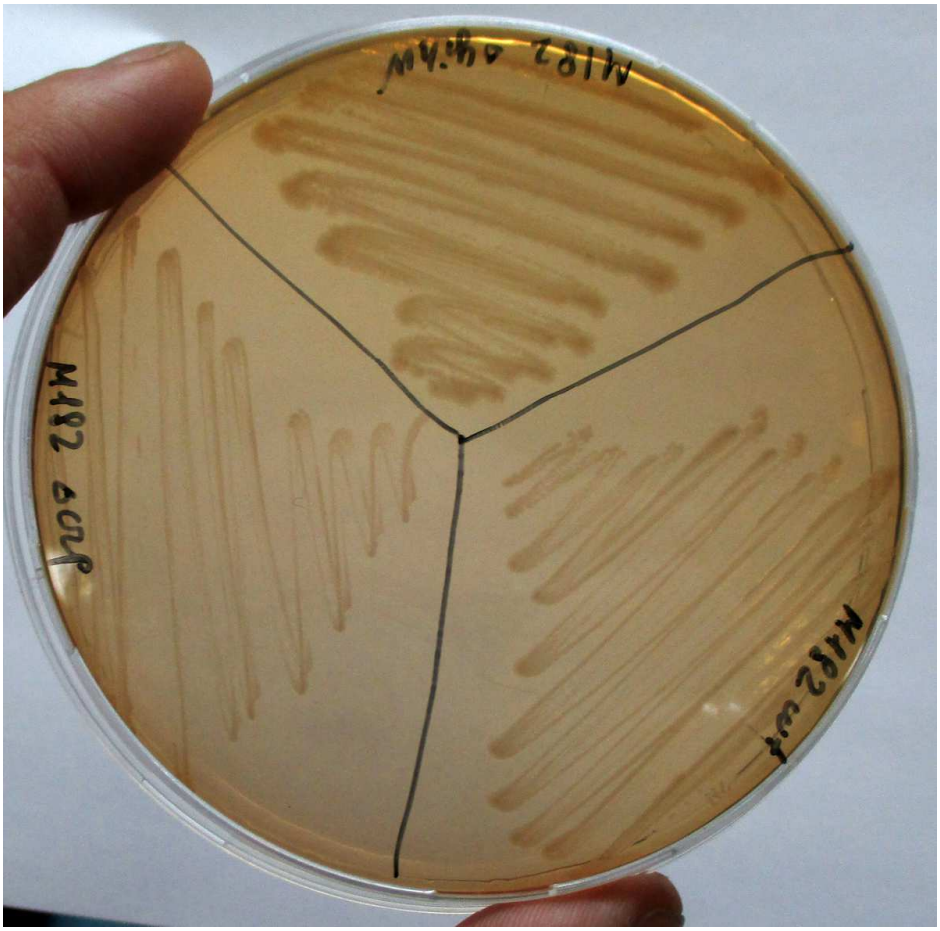

Fig. S2 Growth of the *Escherichia coli* M182 wild type strain, and its Δ*yihW* and Δ*crp* derivatives on MacConkey agar.

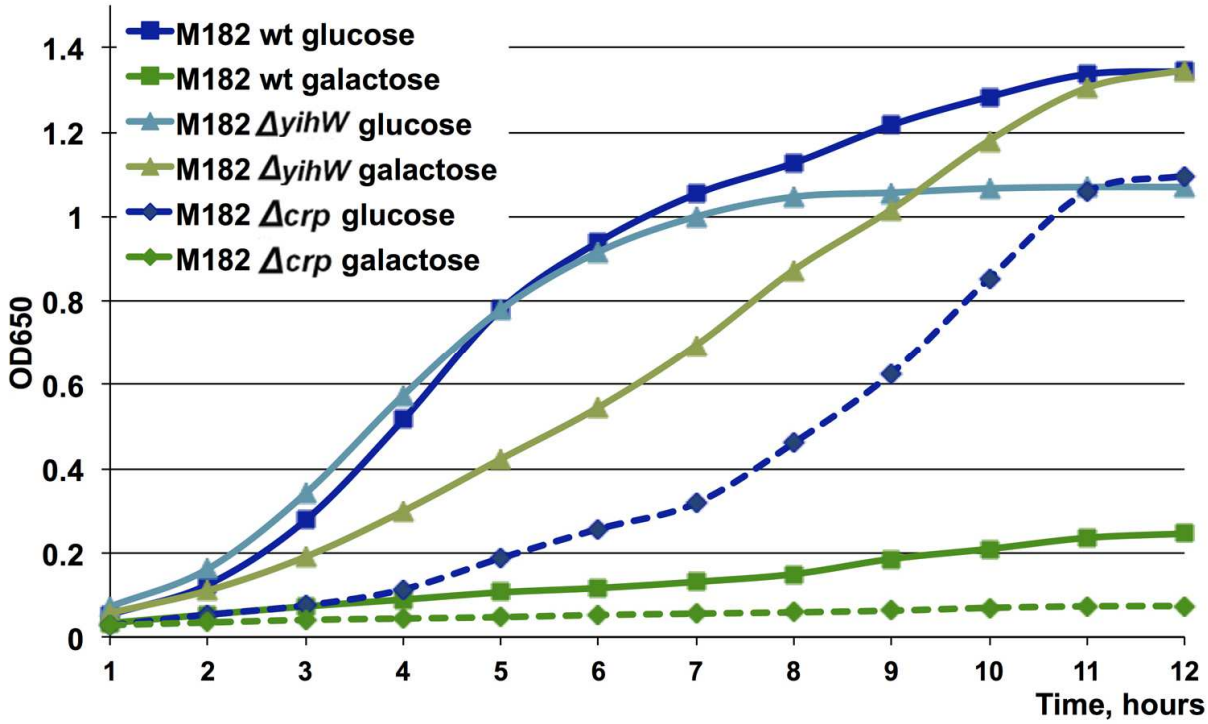

Fig. S3. Effects of *yihW* and *crp* deletions on growth in the presence of 0.2 % glucose or galactose. Squares: the parent strain; triangles: the *yihW* mutant. Dashed lines correspond to cultures with deleted *crp*.