

Table S1. List of primers used

<i>Generation of the vector plasmid containing a zeocin marker</i>	
Zeo_ORF_F	CAATAATATTGAAAAAGGAAGAGTATGGCCAAGTTGACCAGTGCCG
Zeo_ORF_R	CTTGGTCTGACAGTTAGTCCTGCTCCTCGGCCACGAAGTG
Zeo-pUC19_F	GCCGAGGAGCAGGACTAACTGTCAGACCAAGTTTACTC
Zeo-pUC19_R	GTCAACTTGGCCATACTCTTCCTTTTTCAATATTATTG
<i>Cloning of the histidine kinase gene (crrB) into the zeocin vector</i>	
MW_F_5Phos	/5Phos/GTAGATTATCACTTAGCGATGTTG
MW_R	GAAATAACATTAAGTCCCAAAAGAGG
MW_F	GTAGATTATCACTTAGCGATGTTG
pUC19_MW_GA_F	GTTTGCCTCTTTTGGGACTTAATGTTATTTTCGTTTTACAACGTCGTGACTGG
pUC19_MW_GA_R	TATAAATAATTAATCAACATCGCTAAGTGATAATCTACGGTCATAGCTGTTTCCTGTGTG
<i>Identification of transformants containing the crrB plasmid</i>	
Jct_Up_F	CCTGATTCTGTGGATAACCGTATT
Jct_Up_R	TCAATTTGATGTCTTTTGACAGGT

Table S2. List of variants in UHKPC26 and UHKPC28.

HS11286 chromosome position (NC_016845.1)	UHKPC26	UHKPC28	UHKPC24	HS11286	Annotation and Coding Change	UHKPC45 Locus ID (ARVO01000000)
142007	G	A	A	A	intergenic	
149924	C	T	C	C	wecA, G134E	H239_4615
222886	A	G	G	G	elongation factor Tu, synonymous	
222901	G	G	A	A	elongation factor Tu, synonymous	
271699	T	C	C	C	B12-dependent methionine synthase, R388C	H239_3165
511727	-	G	T	T	intergenic	
511728	-	T	A	A	intergenic	
563331	G	A	G	G	intergenic	
563332	G	C	G	G	intergenic	
563334	A	T	A	A	intergenic	
564260	A	-	T	T	intergenic	
564262	G	-	C	C	intergenic	
564263	T	-	C	C	intergenic	
794047	C	G	C	C	carbamoyl phosphate synthase, synonymous	
1079903	G	-	T	T	intergenic	
1079904	C	-	A	A	intergenic	
1598180	G	A	G	G	PTS system component, synonymous	H239_4498
1664898	A	T	A	A	modC, molybdate ABC transporter, L122Q	H239_5401
1763270	-	G	C	C	intergenic	
1763271	-	T	A	A	intergenic	
1951755	T	G	G	G	intergenic	
1951757	T	A	A	A	intergenic	
1951758	T	A	A	A	intergenic	
1951759	T	C	C	C	intergenic	
2459665	T	A	T	T	rstA, F166Y	H239_2647
2550287	A	G	G	G	intergenic	
3034509	C	-	T	T	intergenic	
3036517	T	A	T	T	crrB, histidine kinase Q10L	H239_3060
3036768	T	G	G	G	crrB, histidine kinase L94M	H239_3060
3523324	T	C	C	C	hypothetical protein, R26C	H239_1772
3704358	T	G	T	T	ABC transporter, YejF, synonymous	
3761458	A	A	G	G	naphthoate synthase, A244T	H239_1308