

**Table S1:** Fitness-related determinants of fecal isolate *E. coli* M1/5

Category	Gene identifier	Function
<b>Adhesins</b>	HLK60_20945 – HLK60_20910	Type 1 fimbriae ( <i>fimEAICDFGH</i> )
	HLK_60_01445 - HLK_60_01475	Auf fimbriae ( <i>aufABCDEFGF</i> )
	HLK_60_03095 - HLK_60_03110	CFA/I-like fimbriae ( <i>cfaABCE</i> )
	HLK_60_18795 - HLK_60_18820	Ecp / Mat fimbriae ( <i>yagZYXWV</i> )
	HLK_60_19730 - HLK_60_19760	Yad fimbriae ( <i>yadCKLM, htrE, ecpD, yadN</i> )
	HLK_60_08350 - HLK_60_08365	Yeh fimbriae ( <i>yehABCD</i> )
	HLK_60_07240 - HLK_60_07270	Yfc fimbriae ( <i>yfcVUTSRQPO</i> )
	HLK_60_12065 - HLK_60_12085	Yde fimbriae ( <i>ydeQRST</i> )
	HLK_60_15355 - HLK_60_15385	Curli fimbriae ( <i>csgCABDEFG</i> )
	<b>T2SS</b>	HLK_60_01920 - HLK_60_01985
HLK_60_03820 - HLK_60_03885		( <i>gspOMLKJIHGFEDCA; yghJ, pppA, gspCDEFGHIJKLM, yghG</i> )
<b>T5SS</b>	HLK_60_04040	Autotransporter adhesion antigen 43 (Flu)
	HLK_60_18670	Autotransporter adhesins UpaB, UpaH, UpaI, UpaJ
	HLK_60_12535	
	HLK_60_07750	
	HLK_60_00525	
	HLK_60_04220	Serine autotransporter protease Sat
	HLK_60_18850	Vacuolating autotransporter toxin Vat
HLK_60_25200	Putative serine autotransporter protease	
<b>T6SS</b>	HLK_60_05060 - HLK_60_05170	T6SS-2 subtype i2
	HLK_60_19205 - HLK_60_19340	T6SS-1 subtype i1 and additional
	HLK_60_12265	Vgr-family proteins
	HLK_60_12300	
<b>Iron uptake systems</b>	HLK_60_04320 - HLK_60_04255	Aerobactin biosynthesis – ShiF major facilitator gene cluster I
	HLK_60_25025 - HLK_60_25050	Aerobactin biosynthesis – ShiF major facilitator gene cluster II
	HLK_60_09280 - HLK_60_09330	Yersiniabactin biosynthesis
	HLK_60_04160	Bifunctional enterobactin receptor/adhesin protein Iha
	HLK_60_01045 - HLK_60_01080	Hemin uptake ( <i>hmuV, chuUYXWTAD</i> )
	HLK_60_15455 - HLK_60_15445	Ferrous low pH iron transport ( <i>efeUOB</i> )
	HLK_60_17405 - HLK_60_17425	Enterobactin biosynthesis/transport
	HLK_60_17455 - HLK_60_17480	
	HLK_60_16435	
	HLK_60_21035 - HLK_60_21065	Ferric citrate transport ( <i>fecIRABCDE</i> )
HLK_60_01580 - HLK_60_01575	ferrous iron transport ( <i>feoAB</i> )	

**Other**

HLK_60_19670 - HLK_60_19685	Ferrichrome iron transport
HLK_60_03465 - HLK_60_03490	( <i>fhuBDCA</i> ; <i>fitABCDER</i> )
HLK_60_14430 - HLK_60_14445	Ferrous iron/manganese transport system I ( <i>sitABCD</i> )
HLK_60_25115 - HLK_60_25130	Ferrous iron/manganese transport system II ( <i>sitABCD</i> )
HLK_60_09070	Heme receptor Hma
HLK_60_09115 - HLK_60_09205	Colibactin biosynthesis ( <i>clbARBCDEFGHIJKLMNOPQS</i> )
HLK_60_03890 - HLK_60_03955	K5 capsule ( <i>kpsMT</i> , <i>kfiABCD</i> , <i>kpsSCUDEF</i> )
HLK_60_15725	Outer membrane protein A
HLK_60_17620	Outer membrane protease OmpT, omptin
HLK_60_09840 - HLK_60_09990;	Flag-1 flagellar system
HLK_60_10125 - HLK_60_10195;	
HLK_60_15160 - HLK_60_15225	
HLK_60_18935 - HLK_60_19150	Flag-2 flagellar system
HLK_60_08130	Colicin 1 receptor CirA
HLK_60_07365	Colicin V production protein
HLK_60_25375	Colicin 1A immunity protein
HLK_60_25335	Complement resistance protein
	TraT

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