

Annex 7: Gene-based comparison of horizontal transfers detected by Garcia-Vallve *et al.* [16], Hayes and Borodovsky [35], Lawrence and Ochman [34], Nakamura et al [14], Medigue et al [49] and this work (TW, threshold 99 %, 97.5 %, 95 %) for *E. coli*. Columns are self-explanatory. A star indicates a detected gene. Yellow indicates genes detected by our approach and at least another method, green indicates genes detected only by our approach, red indicates genes found by all methods except our approach, NF = no feature in GIB database.

<i>E. coli</i>		Ref	Ref	Ref	Ref	Ref	TW	TW	TW	
begin	end	Gene	16	35	34	14	49	99	97.5	95
5234	5531	booo5			*	*				
10725	11315	htgA				*				
15445	16557	yi811		*	*	*				
15869	16177	yi82_1				*				
16751	16960	gef				*				
16952	17006	gefL					*			
18715	19620	nhaR		*						
19811	20315	IS1B1			*					
20233	20509	IS1A1			*					
34195	34695	caiF	*			*	*			
58474	59125	yabP			*	*				
59121	59280	yabQ			*	*	*			
65855	66550	b0061								*
66835	68337	b0062								*
70387	71265	b0064								*
71351	72115	b0065								*
72229	72927	b0066					*	*	*	*
72911	74521	b0067					*	*	*	*
74497	75480	b0068					*	*	*	*
75644	77299	b0069								*
77621	78800	yabM		*	*					
84191	85312	leuO		*		*				
111564	111698	b0100				*				
115714	117099	hofB		*						
123017	125680	b0114					*	*	*	*
125695	127587	b0115					*	*	*	*
127912	129336	b0116					*	*	*	*
129407	131260	yacH	*			*				*
135598	136464	speE		*						
136570	137040	yacC				*				
145081	146310	yadE		*						
146968	147870	yadD		*	*	*				
148807	149601	b0134								*
149715	150953	yadC	*	*	*	*	*	*	*	*
151003	151599	yadK	*		*	*	*	*	*	*
151626	152231	yadL	*		*	*	*	*	*	*
152243	152854	yadM	*		*	*	*	*	*	*
152829	155426	htrE	*	*	*		*	*	*	*
155461	156201	ecpD	*	*	*	*	*	*	*	*
156299	156883	yadN	*		*	*	*	*	*	*
159186	160112	yadB		*						

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
160782	161486	sfs1		*		*				
169778	170575	b0151						*	*	
170575	171465	b0152						*	*	
171462	173444	b0153						*	*	
173602	174882	b0154						*	*	
175107	176528	b0155						*	*	
177662	178462	yadT		*						
179237	180754	dgt		*						
184257	185000	yaeI		*	*					
184987	185119	b0165			*	*				
190857	191708	tsf		*						
194903	195664	yaeS		*						
215269	215979	cutF		*						
216179	217057	yaeF				*				
229167	229970	yafB		*						
229967	230881	yafc		*						
231122	231922	yafD		*						
231926	232550	yafE			*					
234027	234782	gloB		*		*				
234798	235538	yafS		*			*	*	*	
236067	236798	dnaQ		*			*	*	*	
237335	238120	yafT		*	*	*	*	*	*	
238746	239084	yafU	*		*	*	*	*	*	
239419	240189	b0219								*
245065	245805	yafK		*						
245961	246240	yafQ			*	*	*			
246242	246503	dinJ			*					
246712	247462	yafL		*	*	*				
247637	248135	yafM			*	*	*			
248358	250098	fhiA			*					
250042	250828	mbhA			*					
252005	252299	yafN			*	*	*			
252301	252700	yafO	*		*	*	*			
252709	253162	yafP	*		*	*	*			
258269	259324	phoE		*						
262552	262894	b0245			*					
262914	263232	yafW			*	*				
263972	264431	b0248		*			*	*	*	
264528	264768	b0249		*			*	*	*	
264844	265312	b0250		*			*	*	*	
265334	266192	yafY		*	*	*	*	*	*	
266408	267245	b0252		*			*	*	*	
267321	268188	b0253		*						*
268513	269407	perR		*	*	*				
269466	269871	y191a			*					
269827	270979	IS30A		*	*	*				
271054	271480	b0257			*	*				
272086	273217	ykfC		*	*	*				
273325	274342	IS5A			*					
274525	275953	ykfD		*						*

<i>E. coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW								
begin	end		16	35	34	14	49	99	97.5	95	
275939	276872	yagD			*					*	
276980	278039	yagC			*					*	
278038	278401	b0263			*					*	
278402	278906	IS1B2	*		*					*	
278824	279100	IS1A2			*	*			*	*	
279609	279987	yagB			*	*		*	*	*	
280053	281208	yagA	*		*			*	*	*	
281481	282411	yagE	*		*			*	*	*	
282425	284393	yagF	*		*			*	*	*	
284619	286002	b0270			*			*	*	*	
286013	287624	yagH	*		*			*	*	*	
287628	288387	yagI	*		*			*	*	*	
288525	289530	argF	*		*			*	*	*	
289873	290377	IS1B3	*		*			*	*	*	
290295	290571	IS1A3			*	*		*	*	*	
290724	291456	yagJ		*	*			*	*	*	
291546	292173	yagK	*		*	*	*	*	*	*	
292444	293143	yagL	*		*	*	*	*	*	*	
293169	294023	yagM	*	*		*	*	*	*	*	
294363	294803	yagN	*			*	*	*	*	*	
294920	296320	intF	*	*		*	*	*	*	*	
296605	297016	yagP			*	*					
302215	302829	yagU	*		*	*	*				
303077	303406	ykgJ				*	*				
309970	310560	ykgK				*	*	*	*	*	
311336	311563	ykgL				*	*	*	*	*	
311738	312001	ykgM				*		*	*	*	
313581	314468	eaeH	*	*	*			*	*	*	
314811	315677	tra5		*		*		*	*	*	
315674	316393	ykgA	*	*	*	*	*		*	*	
316950	317552	ykgB	*		*			*	*	*	
317526	317795	b0302	*		*	*		*	*	*	
317555	317806	ykgI	*	*	*	*	*	*	*	*	
317900	319252	ykgC	*	*	*		*	*	*	*	
319451	320305	ykgD		*		*		*	*	*	
320832	321551	ykgE		*	*			*	*	*	
321562	322989	ykgF		*	*			*	*	*	
322829	323678	b0308			*						
323632	323845	b0309			*	*					
323920	324588	ykgH				*	*				
326485	327957	b0312						*	*		
327971	328558	b0313						*	*		
323920	324589	ykgH	*		*						
331595	332684	yahA		*	*			*	*		
332725	333658	b0316			*			*	*		
333749	334247	b0317			*			*	*		
334504	335110	yahD	*		*						
335149	336013	yahE		*	*	*					
336002	337550	b0320			*			*	*	*	
337549	338968	b0321			*			*	*	*	

<i>E. coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
338993	339314	yahH		*	*			*	*	*
339389	340340	b0323		*				*	*	*
340349	341732	b0324		*				*	*	*
342108	343158	b0325		*						*
343400	344216	yahL	*	*	*	*				*
344598	344874	yahM		*	*	*				*
344890	345562	b0328		*						
345708	345984	yahO		*			*			
348742	349189	b0332		*	*					
349236	350405	b0333					*	*	*	
350439	351890	b0334					*	*	*	
351930	353816	b0335					*	*	*	
357015	357915	cynR		*	*					
358023	358683	cynT			*					
358713	359184	cynS			*					
359216	360371	cynX			*					
360473	361085	lacA			*	*	*			
361150	362404	lacY			*					
362455	365530	lacZ			*					
365652	366735	lacI			*					
370400	371329	mhpC	*							*
371333	372148	b0350						*	*	
372145	373095	b0351						*	*	
373092	374105	b0352						*	*	
376759	377592	yaiM		*						
378830	379126	yaiN				*				
379293	380066	yaiO		*	*					
380068	380511	b0359	*		*	*				
380530	380941	IS2A			*					
380898	381804	IS2A		*	*	*				
381728	382115	b0362			*	*				
381963	383160	yaiP		*	*	*				
383283	383694	yaiS			*	*	*			
389121	389391	b0370			*	*				
389475	390936	yaiT	*	*	*		*	*	*	
390963	391830	IS3	*	*	*		*	*	*	
391826	392135	IS600		*			*	*	*	
392239	393642	b0374								*
393685	394354	yaiV			*	*	*			
398685	399029	b0380				*				
402487	402825	psiF				*	*			
406203	406395	yaiA			*	*	*			
407893	408175	b0392			*					
410255	410497	b0395				*				
410521	411705	araJ		*						
411831	414977	b0397								*
431536	432135	yajI				*				
453663	454013	bolA				*	*			
454357	455655	tig		*						
466624	467454	cof		*						

<i>E. coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
570116	570668	ybcL	*		*	*	*	*	*	*
570677	571475	ybcM	*	*	*	*	*	*	*	*
571689	572145	ybcN			*	*		*	*	*
572144	572315	ninE	*		*	*	*	*	*	*
572307	572598	ybcO			*	*		*	*	*
572594	572957	ylcG			*		*	*	*	*
573179	573563	ybcQ			*	*				*
573960	574977	IS5B			*					*
574981	576109	nmpC	*		*		*	*	*	*
576621	576837	ybcR	*		*		*	*	*	*
576836	577334	ybcS	*		*	*	*	*	*	*
577330	577792	b0556			*		*	*	*	*
577823	578117	ybcU	*		*	*	*	*	*	*
578407	578860	ybcV	*		*	*	*	*	*	*
579103	579310	ybcW	*		*	*	*	*	*	*
580057	580603	nohB			*		*	*	*	*
580577	581321	b0561			*		*	*	*	*
581375	581807	ybcY	*		*	*	*	*	*	*
582904	583654	appY	*		*		*	*	*	*
580577	581320	ybcX		*			*	*	*	*
582904	583653	appY		*		*	*	*	*	*
583903	584856	ompT		*	*	*	*	*	*	*
585370	586131	envY		*	*		*	*	*	*
586314	587205	ybcH			*			*	*	*
587205	590178	nfrA			*					
590164	592402	nfrB			*					
598500	600500	NF								
607288	608401	IS186B		*	*	*				
608682	609311	entD		*						
612038	613162	fes		*						
613000	615500	NF								
617477	618610	fepE		*						
619419	620411	fepG	*				*	*	*	*
620408	621412	fepD	*				*	*	*	*
621523	622773	ybdA	*				*	*	*	*
622777	623733	fepB	*				*	*	*	*
624108	625283	entC	*							*
625293	626903	entE	*							*
626917	627774	entB	*				*	*	*	*
627774	628520	entA	*				*	*	*	*
628523	628936	ybdB	*				*	*	*	*
629117	631222	cstA	*				*	*	*	*
634572	635792	ybdN		*		*		*	*	*
635939	636841	ybdO		*	*	*	*	*	*	*
637050	637856	dsbG		*			*	*	*	*
641311	642549	ybdR		*						
642630	643091	b0609				*				
643420	644226	rnsA		*						
646707	647258	ybdU	*							
656778	657161	crcB			*	*				

<i>E. coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW											
begin	end		16	35	34	14	49	99	97.5	95				
659648	660448	ybeF		*		*								
674793	675776	ybeQ		*	*		*			*	*			*
675934	676641	ybeR		*	*	*				*	*			*
676638	678065	ybeS		*	*	*				*	*			*
678075	678630	ybeT			*	*	*			*	*			*
678731	679439	ybeU		*	*	*	*							*
679435	680887	ybeV		*	*									
680946	682617	b0650			*									
687220	688237	IS5C			*									
695581	695916	b0663	*				*							
695931	696069	b0667			*	*								
696065	696184	b0669				*								
696185	696337	b0671				*								
699597	700817	nagC		*										
714635	715129	ybfP	*		*	*	*							
715170	715532	ybfG	*		*	*	*							
715611	715928	ybfH	*		*	*								
715944	716141	ybfI	*											
720279	720956	ybfK						*						
723630	724202	b0696						*	*	*				
724211	726259	b0697						*	*	*				
726282	727955	b0698						*	*	*				
728357	728563	b0699						*	*	*				
728806	733000	rhsC			*			*	*	*				*
732593	732815	b0701			*	*		*	*	*				*
732999	733326	ybfB			*	*	*	*	*	*				*
733443	734877	rhsA		*	*	*		*	*	*				*
734873	735443	ybfC	*		*	*	*	*	*	*				*
736327	737185	ybfL		*	*	*	*	*	*	*				*
737315	738077	ybfD		*	*	*	*	*	*	*				*
738224	738733	b0707						*	*	*				
747144	748233	ybgO		*	*									
748202	748931	ybgP		*	*									
748945	751402	ybgQ		*	*									
751452	752019	ybgD			*	*								
754400	754789	sdhC				*								
757687	757947	b0725				*								*
757929	760730	b0726							*	*				*
760745	761962	b0727							*	*				*
762237	763403	b0728							*	*				*
764376	765099	farR			*									
765207	767184	hrsA			*									
767201	769835	ybgG		*	*									
772265	773404	b0734												*
773532	773825	b0735												*
773975	774379	b0736												*
774376	775068	b0737												*
775565	776830	b0739												*
776963	778255	b0740							*	*				*
778290	778811	b0741							*	*				*

	<i>E coli</i>	Gene	Ref 16	Ref 35	Ref 34	Ref 14	Ref 49	TW 99	TW 97.5	TW 95
778821	779612	ybgF	*					*	*	
781308	782351	nadA	*							
793996	794146	b0762			*					
798845	799862	ybhD	*	*	*	*				
799982	801035	ybhH	*	*						
801110	802544	b0770			*					
802702	804988	b0771			*					
807191	808480	b0774							*	
808567	809607	b0775							*	
809604	810758	b0776							*	
814962	815870	b0780	*							
819107	819812	b0786			*					
820016	820729	ybhM	*	*	*	*	*			
820765	821722	b0788			*					
824225	825332	b0792			*					
825342	826476	b0793			*					
826468	828220	b0794			*					
831691	832174	ybiA			*					
835574	836660	ybiC			*					
841019	841423	ybiM				*				
850237	851820	ybiP	*							
851894	852163	b0816				*				
858436	859251	b0822		*						
872202	874550	b0833	*	*			*	*	*	
874558	875886	b0834	*	*			*	*	*	
877471	877854	b0836				*				
884539	885327	b0844	*	*						
889312	889689	ybjM				*				
889719	889977	grxA			*					
899067	899798	artJ	*							
913181	914128	ybjE	*							
921589	921813	cspD					*			
925951	926655	aat	*							
944154	944781	ycaC			*					
946260	947882	b0899	*							
947883	948791	ycaN	*	*	*					
948891	949482	ycaK			*	*	*			
952832	953689	focA	*							
959463	960251	ycaL	*							
963465	965807	ycaI	*			*	*			
970975	971868	b0919	*							
974872	975549	b0923					*	*	*	
975549	980009	b0924					*	*	*	
997082	997631	ycbQ			*	*	*			
997713	998415	ycbR	*	*	*	*		*	*	
998439	1001040	ycbSfimD	*	*				*	*	
1001030	1002101	ycbT	*	*	*	*				
1002112	1002655	b0942			*	*				
1002614	1003178	b0943			*	*				
1003143	1003881	ycbF	*	*	*					

<i>E. coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW								
begin	end		16	35	34	14	49	99	97.5	95	
1003991	1005001	pyrD		*							
1005714	1006823	b0947		*							
1011224	1012477	pqiA		*							
1014938	1015106	rmf			*	*	*				
1019633	1020142	sulA				*					
1032477	1034270	b0973								*	
1034289	1034996	b0974								*	
1039840	1041138	appA	*	*							
1047168	1047914	ymcB	*								
1047911	1048556	b0986			*						
1048662	1048986	ymcD			*	*					
1049250	1049754	IS1B			*						
1050186	1050398	cspH					*				
1050684	1050896	cspG				*					
1051070	1051301	sfa			*	*	*				
1051512	1052586	yccM	*	*							
1063259	1064516	yccE	*	*	*	*				*	
1064808	1066049	b1002						*	*		
1066087	1066314	b1003						*	*		
1066335	1066931	b1004						*	*		
1067141	1067372	ycdF			*	*					
1067734	1069129	b1006			*						
1069588	1070178	b1008								*	
1070188	1070988	b1009								*	
1070996	1071382	b1010								*	
1084215	1085279	phoH		*							
1085329	1085742	ycdP	*		*	*	*				
1085744	1087069	ycdQ	*	*	*						
1087062	1089080	ycdR	*	*	*	*	*	*	*	*	
1089089	1091512	ycdS	*	*	*		*	*	*	*	
1092099	1093457	ycdT	*	*	*	*	*	*	*	*	
1093498	1094364	tra5_3				*	*	*	*	*	
1094746	1095069	IS3	*	*	*		*	*	*	*	
1094361	1094670	IS3			*		*	*	*	*	
1094746	1095070	ymdE			*	*	*	*	*	*	
1095066	1096052	ycdU	*	*	*	*	*	*	*	*	
1096171	1096423	b1030			*	*					
1096190	1096604	ycdV			*	*					
1097070	1098047	ycdW		*							
1098102	1098839	ycdX		*							
1100074	1100908	csgG			*		*	*	*	*	
1100934	1101351	csgF	*		*		*	*	*	*	
1101375	1101765	csgE	*		*	*	*	*	*	*	
1101769	1102420	csgD	*		*	*	*	*	*	*	
1103174	1103630	csgB	*		*	*	*	*	*	*	
1103670	1104126	csgA			*		*	*	*	*	
1104184	1104517	csgC	*		*	*	*	*	*	*	
1104637	1104949		*		*	*	*	*	*	*	
1105043	1105577	b1045			*	*		*	*	*	
1105518	1106999	ymdC	*							*	

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
1220429	1221446	b1170	*	*	*			*	*	*
1221528	1221864	b1171	*		*			*	*	*
1221867	1222152	b1172			*			*	*	*
1222918	1223131	b1173			*	*				
1223502	1223769	minE			*					*
1223772	1224585	minD			*					*
1224608	1225304	minC			*					*
1225823	1226192	ycgJ			*	*	*			
1226294	1226696	ycgK			*	*	*	*	*	*
1226904	1227231	b1179			*			*	*	*
1227302	1227961	b1180					*	*	*	*
1228023	1228499	b1181					*	*	*	*
1228706	1229624	hlyE	*	*	*	*		*	*	*
1230409	1231677	umuC	*							
1242289	1243014	mltE	*							
1243016	1243750	ycgR	*							
1244383	1244824	ycgY			*	*				
1250280	1252208	dhaR	*							
1252308	1255175	b1202	*	*						
1267388	1268242	kdsA	*							
1269972	1271072	chaA	*							
1273148	1274401	yehP	*							
1279087	1282830	b1224								*
1282827	1284365	b1225								*
1285932	1286208	b1228			*	*				
1286310	1286412	tpr			*	*				
1287897	1288356	yehJ			*	*	*			
1288429	1289373	rrsAychK	*							
1289465	1290478	hnrorn	*							
1292750	1293368	tdk			*	*	*			
1293649	1294240	yehG			*	*				
1294191	1294422	b1240			*					
1299206	1300837	b1243								*
1300923	1301843	oppB	*							
1305209	1306669	cls	*							
1307040	1308293	kch	*	*	*					
1308593	1308986	yciI			*	*				
1309872	1310271	yciA			*					
1310944	1311687	b1255								*
1312044	1312682	b1256								*
1312742	1313249	yciE			*		*			*
1313294	1313795	yciF			*					
1313880	1314117	yciG			*					
1321244	1322125	yciV	*							
1322770	1324665	yciQ	*	*	*					
1331879	1332853	cysB	*				*			
1337354	1338118	pgpB	*				*			
1340679	1341009	yciH			*					
1341134	1341353	osmB			*					
1341621	1342370	b1284	*							

<i>E coli</i>		Gene	Ref			TW				
begin	end		16	35	34	14	49	99	97.5	95
1423202	1423484	b1364			*	*		*	*	*
1423401	1423665	b1365			*			*	*	*
1423645	1424005	b1366			*			*	*	*
1424079	1424313	b1367			*	*		*	*	*
1424478	1425507	ynaA	*		*	*	*	*	*	*
1425482	1425638	b1369			*					
1425770	1426751	IS5E			*					
1426547	1427009	IS5			*	*				
1427067	1430436	b1372	*		*	*		*	*	*
1430435	1431011	b1373			*			*	*	*
1431108	1431699	pinR	*		*	*	*	*	*	*
1432015	1432282	ynaE			*	*	*	*	*	*
1433784	1434917	ompN	*					*	*	*
1443711	1443897	b1382			*					
1443898	1444231	ydbL			*		*			
1444402	1445307	maoB	*							
1445540	1447042	padA	*							
1451951	1452880	ydbO	*							
1461563	1462513	paaXb1399	*							
1462495	1463086	b1400			*					
1463416	1465975	ydbA_1			*	*				*
1465945	1466851	IS2	*		*	*				*
1466808	1467219	IS2			*					
1467382	1468534	IS30C	*		*	*				
1468714	1472038	ydbA_2	*		*					
1473162	1475475	ydbD	*	*	*	*		*	*	*
1475639	1476251	b1408			*	*		*	*	*
1476250	1477147	ynbB	*	*	*	*		*	*	*
1477162	1478920	b1410	*	*						
1478933	1480226	ynbD			*	*				
1485259	1486059	ydcF	*							
1489701	1489875	ydcA			*	*				
1489986	1490154	b1420			*	*				
1490494	1492134	trg	*							
1492172	1493236	b1422	*			*				
1496456	1496660	b1425			*	*				
1496732	1496900	ydcH			*					
1497493	1498473	b1428	*							
1501681	1502889	yncK	*			*	*			
1502929	1504365	b1433	*			*				
1506858	1507088	b1436				*				
1507274	1507472	b1437	*			*				
1507511	1507949	b1438	*							
1511855	1512797	b1442	*							
1515338	1515586	b1445				*				
1518229	1518951	yncC	*	*		*	*			
1518987	1521089	b1451	*							
1524271	1524889	b1454			*					
1524964	1525177	yncH	*		*	*	*	*	*	*
1525914	1527963	rhsE			*	*		*	*	*

<i>E coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW								
begin	end		16	35	34	14	49	99	97.5	95	
1527946	1528429	ydcD	*		*	*	*	*	*	*	*
1528610	1529357	yncI	*	*	*	*	*	*	*	*	*
1529400	1529601	b1459	*		*	*		*	*	*	*
1529840	1530977	ydcC	*	*	*	*	*	*	*	*	*
1531076	1531310	ydcE	*		*	*		*	*	*	*
1531306	1531924	b1462	*		*			*	*	*	*
1540696	1542084	narU		*		*		*	*	*	*
1542408	1542744	yddJ			*	*	*	*	*	*	*
1542782	1543739	yddK		*	*	*	*	*	*	*	*
1543762	1544053	b1472			*			*	*	*	*
1544312	1545193	yddG	*					*	*	*	*
1545425	1548472	fdnG	*					*	*	*	*
1548485	1549369	fdnH		*							
1550422	1550785	b1477			*						
1553850	1553987	rpsV				*					
1554089	1554367	b1481				*					
1558955	1560506	b1487			*						
1560519	1561101	b1488			*						
1561358	1563782	b1489			*						
1563782	1565165	yhcK		*	*						
1565528	1566847	b1491		*		*					
1566978	1568514	xasA			*						
1568669	1570070	gadB			*						
1570431	1573227	yddC	*	*	*					*	*
1573271	1575644	yddB	*	*	*			*	*	*	*
1575681	1577367	yddA	*	*	*			*	*	*	*
1577657	1578830	b1497	*	*	*	*		*	*	*	*
1578866	1580582	ydeN	*	*	*		*	*	*	*	*
1580950	1581712	ydeO	*	*	*	*	*	*	*	*	*
1581786	1581984	b1500	*		*	*		*	*	*	*
1582231	1584511	b1501		*	*			*	*	*	*
1584844	1585759	ydeQ	*	*	*	*	*	*	*	*	*
1585817	1586321	ydeR	*		*	*	*	*	*	*	*
1586333	1586864	ydeS	*		*	*	*	*	*	*	*
1586877	1588026	ydeT	*	*	*	*	*	*	*	*	*
1588381	1588561	yneL	*		*		*	*	*	*	*
1588878	1590201	hipA	*	*	*	*		*	*	*	*
1590200	1590467	hipB			*	*					
1590689	1592090	b1509		*	*						
1592133	1596111	ydeK		*	*	*		*	*	*	*
1596641	1598233	ydeV		*							
1598312	1599265	ydeW		*							
1613787	1614902	yneK		*	*	*	*				
1618013	1618231	marB				*	*				
1619356	1620543	ydeF		*						*	*
1620984	1621874	ydeH		*	*					*	*
1622797	1623315	ydeJ					*				
1623359	1625404	dcp		*							
1627477	1628937	ydfI		*				*	*	*	*
1629026	1630309	b1543		*				*	*	*	*

<i>E. coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
1631063	1631330	ydfK			*	*	*	*	*	*
1631646	1632237	pinQ	*		*	*	*	*	*	*
1632261	1632909	b1546			*			*	*	*
1632908	1633871	b1547		*	*	*		*	*	*
1633821	1634391	nohA			*			*	*	*
1635055	1635481	ydfO	*		*	*	*	*	*	*
1635632	1635809	ydfY			*	*	*	*	*	*
1635977	1636169	b1551			*	*		*	*	*
1636478	1636691	cspI			*		*	*	*	*
1637053	1637551	ydfP			*	*	*	*	*	*
1637547	1638081	b1554	*		*	*		*	*	*
1638077	1638389	ydfR	*		*	*	*	*	*	*
1638393	1638684	essQ	*		*	*	*	*	*	*
1639362	1639578	cspB	*		*	*	*	*	*	*
1639878	1640091	cspF	*		*			*	*	*
1640512	1641295	b1559	*	*	*	*		*	*	*
1641278	1642367	b1560		*	*			*	*	*
1642674	1642926	rem	*		*	*	*			
1643142	1643298	relF			*	*				*
1643369	1643657	relE			*	*		*	*	*
1643656	1643896	relB			*			*	*	*
1643920	1644226	ydfV	*		*	*	*	*	*	*
1644428	1644761	flxA	*		*		*	*	*	*
1645197	1645347	ydfW	*		*	*	*	*	*	*
1645369	1645660	ydfX	*		*		*	*	*	*
1645643	1645874	dicC	*		*	*		*	*	*
1645957	1646365	dicA	*		*	*	*	*	*	*
1646531	1646687	ydfA			*			*	*	*
1646646	1646817	ydfB	*		*			*	*	*
1646846	1647065	ydfC			*			*	*	*
1647632	1647821	dicB	*		*	*	*			*
1647817	1648009	ydfD	*		*	*	*			*
1648101	1649022	ydfE		*	*	*				*
1648904	1649561	IS2E		*	*	*				*
1649535	1650732	intQ	*	*	*	*	*			*
1650919	1651939	rspB	*	*	*					*
1654770	1655517	ynfC		*	*					
1655547	1655894	b1586				*				
1658577	1661003	b1588		*						
1661633	1662487	b1590		*						
1669372	1669708	asr			*		*			
1669984	1670805	b1598		*						
1671160	1671525	b1600	*							
1680174	1680902	rstA		*						
1689610	1690863	uidC		*	*					
1690913	1692287	uidB			*					
1692283	1694095	uidA			*					
1694485	1695076	gusR			*					
1695296	1696064	hdhA		*	*		*			
1696176	1697204	malI		*						

<i>E coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW								
begin	end		16	35	34	14	49	99	97.5	95	
1827755	1828789	b1747								*	
1831377	1832135	ydjX				*					
1831977	1832817	ydjY		*	*						
1834094	1835263	b1754						*	*		
1835281	1836771	b1755						*	*		
1836771	1837424	b1756						*	*		
1839887	1840159	b1760				*					
1841854	1843018	ynjI		*	*	*	*				
1850644	1852003	ydjE		*	*	*					
1852119	1852878	b1770	*	*	*			*	*		
1853014	1853995	b1771	*	*	*			*	*		
1854004	1854973	b1772	*	*	*			*	*		
1854956	1855793	b1773	*	*	*			*	*		
1855813	1856857	ydjJ	*	*					*		
1856873	1858253	b1775	*	*							
1858279	1859356	b1776	*	*							
1862806	1863660	b1781	*								
1864932	1866866	b1783								*	
1866979	1868262	b1784								*	
1868409	1869884	yhcK	*	*	*			*	*	*	
1869885	1871555	yeaJ	*	*	*			*	*	*	
1872779	1873600	yeaM	*		*		*				
1873697	1874878	yeaN	*								
1875302	1875556	yoaF			*						
1875610	1876764	yeaP	*								
1877031	1877279	yeaQ					*				
1877613	1877972	yeaR			*						
1882688	1883813	b1802		*							
1883868	1884834	yeaX	*	*							
1892096	1892456	yoaC		*	*	*	*				
1902825	1903283	b1820			*						
1904275	1905084	yebH	*						*		
1905471	1905615	b1824		*					*		
1906284	1906572	b1825		*	*				*		
1913655	1914206	b1832									
1918241	1919686	yebU	*		*						
1919788	1920040	b1836		*							
1920060	1920336	b1837		*	*						
1920336	1920996	b1838		*							
1921388	1921730	b1839		*							
1923464	1924120	b1843			*						
1934676	1935545	yebK	*								
1939675	1940661	yebL	*	*	*	*	*				
1940685	1941441	b1858		*							
1941437	1942223	yebI		*							
1944175	1944877	yebB	*	*	*	*	*				
1949419	1950237	yecE	*								
1955056	1956156	yecK	*	*	*						
1956544	1956984	cutC	*	*	*						
1959975	1960484	yecT	*	*	*	*	*				

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
1960604	1960996	flhE						*		
1967406	1969008	tap			*					
1975290	1975868	flhC				*				
1976541	1977045	IS1B			*					
1976963	1977239	IS1A			*					
1977776	1978205	yecG			*	*	*			
1985467	1985805	b1903				*				*
1986245	1986568	b1904				*				*
1986739	1987236	b1905								*
1987273	1987513	yecH			*					*
1994133	1994855	sdiA		*		*				
2000133	2001629	fliChaghsg48		*						
2007843	2008497	yedG			*					
2008621	2009101	yedL			*	*				
2009369	2009561	b1933			*	*				
2009570	2009891	yedN	*		*	*	*			
2010022	2010373	yedM			*	*	*			
2010523	2010802	intG			*	*	*			
2012902	2013897	b1939						*	*	
2013869	2014576	b1940						*	*	
2014576	2015949	b1941						*	*	
2015968	2016411	b1942						*	*	
2016408	2017535	fliK		*						
2021990	2022613	rcsA	*		*	*	*			
2023533	2024348	wzx		*						
2031141	2031524	yedR	*				*			
2032043	2032558	b1964	*		*		*	*	*	
2032568	2032777	b1965	*		*		*	*	*	
2032861	2033265	b1966	*				*	*	*	
2033857	2034708	yedU	*	*			*	*	*	
2034816	2036174	yedV	*	*	*	*	*	*	*	
2036174	2036893	yedW	*	*	*	*	*	*	*	
2036978	2037391	yedX	*		*	*	*	*	*	
2038505	2039140	b1972	*				*	*	*	
2039397	2040047	yodA	*		*	*	*	*	*	
2040360	2040920	yodB	*		*	*	*	*	*	
2041634	2042470	yeeI		*	*	*	*	*	*	
2042885	2050036	b1978	*	*	*	*		*	*	
2050297	2050624	b1979	*		*	*			*	
2050645	2051350	yeeL	*	*	*	*	*		*	
2051665	2052981	shiA	*					*	*	
2053083	2054537	amn		*	*			*	*	
2054880	2055596	yeeN		*	*		*	*	*	
2056225	2057868	yeeO		*		*		*	*	
2057986	2058936	cbl		*			*	*	*	
2059038	2059955	nac		*	*	*	*			
2060413	2061345	erfK		*						
2061410	2062489	cobT		*						
2064326	2065343	IS5			*				*	
2066629	2067049	b1995			*	*		*	*	

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
2066973	2067879	IS2F	*	*				*	*	*
2067836	2068247	IS2F		*			*	*	*	
2068265	2068526	b1998		*	*		*	*	*	
2068522	2069233	b1999		*			*	*	*	
2069404	2072680	b2000		*			*	*	*	
2072794	2074333	yeeS	*	*	*		*	*	*	
2074329	2074776	b2002		*	*		*	*	*	
2074838	2075060	b2003		*			*	*	*	
2075133	2075502	yeeU		*	*		*	*	*	
2075590	2075965	b2005		*			*	*	*	
2075961	2076156	b2006		*			*	*	*	
2079403	2080575	dacDphsE	*							
2082247	2082475	yeeD		*						
2082488	2083547	yeeE	*	*						
2085351	2086301	yeeY	*							
2087483	2087762	yefM		*			*			
2088020	2088070	hisL					*			
2089119	2090423	b2020							*	
2090420	2091490	b2021							*	
2091487	2092557	b2022							*	
2092557	2093147	b2023							*	
2095343	2096359	wzzB	*							
2096469	2097635	ugd	*		*					
2097884	2099290	b2029					*	*	*	
2099916	2100933	IS5I		*			*	*	*	
2100937	2101411	yefJ	*	*	*	*	*	*	*	
2101412	2102531	yefI	*	*	*	*	*	*	*	
2102515	2103106	yefH	*	*	*	*	*	*	*	
2103086	2104079	yefG	*	*	*	*	*	*	*	
2104081	2105248	rfc	*	*	*	*	*	*	*	
2105247	2106351	yefE	*	*	*	*	*	*	*	
2106358	2107606	rfbX	*	*	*	*	*	*	*	
2107602	2108160	rfbC	*	*	*	*	*	*	*	
2108159	2109041	rfbA	*	*	*	*	*	*	*	
2109098	2109998	rfbD	*	*	*	*	*	*	*	
2109997	2111083	rfbB	*	*	*	*	*	*	*	
2112524	2113918	yefKwcaM	*							
2116701	2118180	b2046		*						
2118181	2119576	b2047		*						
2126362	2126910	wcaF			*					
2126926	2127672	wcaE	*		*					
2127683	2128900	wcaD	*							
2147061	2149007	b2070	*	*						
2149206	2149668	yegJ		*	*	*				
2149732	2150494	b2072	*	*						
2150490	2151150	b2073		*						
2153285	2156407	b2075					*	*		
2156408	2159485	b2076					*	*		
2163171	2163543	b2080		*						
2165323	2165542	ogrK		*	*					

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
2165623	2165770	b2083			*	*				
2165756	2166023	b2084			*	*				
2166010	2166388	yegR	*		*	*	*			
2166733	2167633	b2086		*	*					
2168553	2169420	IS3		*	*	*				
2169855	2170895	gatD		*						
2172301	2172586	gatB			*					
2172616	2173069	gatA			*	*	*			
2173079	2174341	gatZ		*						
2180853	2181680	yegX		*	*					
2182533	2183321	thiM		*						
2183937	2184761	yohM		*						*
2184800	2185318	b2107	*			*		*	*	*
2185400	2186434	yehA	*	*	*	*	*	*	*	*
2186450	2188930	yehB	*	*	*		*	*	*	*
2188946	2189665	yehC	*	*	*	*	*	*	*	*
2189700	2190242	yehD	*		*		*	*	*	*
2190535	2190816	yehE	*		*	*	*	*	*	*
2191079	2192218	b2113						*	*	
2194494	2195318	molR_1	*	*	*	*				
2195430	2197367	molR-2		*	*	*				
2197287	2198289	b2117			*					
2198298	2201931	yehI		*	*					
2202549	2203704	yehL			*					
2203714	2205994	yehM			*			*	*	
2205986	2207123	yehP			*			*	*	
2207095	2208964	yehQ	*	*	*			*	*	
2214501	2215427	b2129								*
2215420	2216577	b2130								*
2226569	2226859	yohH				*				
2230896	2231616	sanA		*	*					
2231618	2231858	b2144			*	*				
2232053	2233291	b2146		*						
2233279	2234520	yeiA		*						
2235789	2237309	mgIA		*						
2249718	2250807	yeiI			*					
2250913	2252164	yeiJ			*					
2252263	2253205	yeiK			*					
2253373	2254033	yeiL			*	*				
2254103	2255354	yeiM			*					
2255447	2256386	yeiN			*					
2256373	2257315	yeiC		*	*					
2263215	2264042	yeiP				*				
2266838	2267587	b2174		*		*				
2284410	2286920	yejO		*	*	*				
2286923	2287046	b2191			*	*				
2287083	2288100	IS5K			*					
2289378	2290430	b2194								*
2290427	2290984	b2195								*
2290981	2292924	b2196					*			*

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
2292921	2293400	b2197							*	*
2293397	2293606	b2198							*	*
2293603	2294340	b2199							*	*
2297585	2298280	b2205							*	*
2298287	2300773	b2206							*	*
2301023	2301517	napF				*				
2317835	2319662	atoS		*	*					
2319658	2321044	atoC			*					
2321239	2321902	b2221			*					
2321901	2322552	b2222			*					
2322548	2323871	b2223			*					
2323901	2325086	b2224			*					
2325159	2325936	b2225		*	*					
2325940	2327590	b2226		*	*					
2327590	2328076	b2227			*					
2328091	2332105	b2228			*					
2332128	2332779	b2229			*					
2332748	2334485	yfaA			*					
2338209	2341962	yfaL		*	*					
2346614	2347265	inaA			*					
2347479	2347686	yfaH			*		*			
2354924	2355823	yfaDyhgA		*						
2359449	2360231	b2248?		*						
2362810	2363413	ais			*	*				
2363915	2365087	b2253		*						
2370630	2371298	b2258				*				
2371292	2371588	pmrD				*				
2373020	2373982	b2261					*	*	*	
2373982	2374839	menB	*				*	*	*	
2374854	2375612	b2263					*	*	*	
2375609	2377279	b2264					*	*	*	
2379610	2380545	b2268							*	
2380733	2381944	elaD	*	*	*	*	*	*	*	
2382015	2383742	yfbK	*	*	*		*	*	*	
2383874	2384851	yfbL	*	*	*	*	*	*	*	
2384954	2385457	yfbM	*		*		*	*	*	
2385730	2386446	yfbN	*	*	*	*	*	*	*	
2386601	2387077	yfbO	*		*	*	*	*	*	
2387133	2387984	yfbP	*	*	*	*			*	
2389532	2391061	b2277					*	*	*	
2391225	2393066	b2278					*	*	*	
2393063	2393365	b2279					*	*	*	
2393362	2393916	b2280					*	*	*	
2393928	2394470	b2281					*	*	*	
2394485	2395462	b2282					*	*	*	
2395459	2398191	b2283					*	*	*	
2398238	2399575	b2284							*	
2399572	2400072	b2285							*	
2412767	2414911	pta		*						
2420669	2421559	yfcI		*		*				

<i>E coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW								
begin	end		16	35	34	14	49	99	97.5	95	
2425029	2425811	argT		*							
2438405	2439625	fabB		*							
2439724	2441790	b2324		*							
2445528	2446793	yfcB				*					
2447248	2448084	yfcO	*	*	*	*	*				
2449092	2449604	b2335				*					
2451285	2453021	yfcUpapC		*							
2459320	2460666	fadL		*				*	*	*	
2461032	2462090	yfdF		*		*	*	*	*	*	
2464565	2465722	yfdB	*	*	*	*	*	*	*	*	
2465875	2466237	yfdG	*		*	*	*	*	*	*	
2466234	2467154	yfdH	*	*	*	*	*	*	*	*	
2467151	2468482	yfdI	*	*	*	*	*	*	*	*	
2468553	2468898	b2353			*			*	*	*	
2469097	2469537	yfdK	*		*		*	*	*	*	
2469564	2470082	yfdL	*		*	*	*	*	*	*	
2469904	2470213	b2355			*			*	*	*	
2470179	2470674	b2357			*			*	*	*	
2470670	2471039	b2358			*	*				*	
2471312	2471759	b2359			*						
2471824	2472649	b2360		*	*						
2472749	2473313	b2361			*	*				*	
2473303	2473666	yfdS			*		*			*	
2473665	2473971	yfdT			*		*			*	
2474714	2475649	dsdC	*	*		*				*	
2475867	2477204	dsdX	*							*	
2477222	2478550	dsdA		*				*	*	*	
2478658	2480196	emrY	*	*	*	*	*	*	*	*	
2480196	2481359	emrK	*	*	*	*	*	*	*	*	
2481775	2482389	evgA	*		*	*	*	*	*	*	
2482394	2485987	evgS	*	*	*	*	*	*	*	*	
2486043	2487227	yfdE	*	*	*	*	*	*	*	*	
2487262	2488206	yfdV	*	*	*	*	*	*	*	*	
2488276	2489970	b2373	*	*	*		*	*	*	*	
2490024	2491274	b2374	*	*	*		*	*	*	*	
2491559	2492195	b2375			*		*	*	*	*	
2492718	2492993	ypdI	*			*	*	*	*	*	
2493070	2493312	b2377						*	*	*	
2493599	2494585	b2378						*	*	*	
2498922	2499780	b2381			*						
2499782	2502278	b2383			*			*	*	*	
2502302	2503340	b2384			*			*	*	*	
2503339	2504425	b2385			*			*	*	*	
2504439	2505687	b2386			*						
2505708	2506035	b2387			*						
2507650	2508906	b2389		*							
2509085	2509429	b2391				*					
2512345	2513463	yi813		*	*	*					
2513663	2515969	yfeA		*							
2516244	2516604	yfeC			*						

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
2516605	2516998	yfeD			*		*			
2519613	2520497	xapRpndR		*						
2523147	2523911	xapAP		*						
2535769	2536503	molR		*	*	*				
2537737	2538834	b2422								*
2538824	2539273	b2423								*
2539699	2540532	b2424								*
2542772	2543629	yefTyfhH		*	*					
2556791	2558086	b2442		*	*	*				
2558050	2558692	yffL			*	*	*			
2559161	2559407	b2444			*	*				*
2559403	2559787	yffN			*	*	*			*
2559904	2560321	yffO			*	*	*			*
2560317	2560911	b2447			*	*				*
2561370	2561763	yffQ	*		*	*	*			*
2561773	2562166	yffR	*		*	*	*			
2562286	2563126	b2450		*	*					
2563501	2564904	b2451					*	*	*	
2564901	2566127	b2452					*	*	*	
2566344	2567558	eutG	*				*	*	*	
2567521	2568357	eutJ	*				*	*	*	
2568368	2569771	eutE	*				*	*	*	
2569783	2570070	cchB	*				*	*	*	
2570177	2570512	cchA	*				*	*	*	
2570509	2571525	eutI	*				*	*	*	
2571522	2572325	b2459	*							*
2572322	2573023	b2460	*							
2573490	2573897	b2462				*				
2591864	2593879	ypfI		*						
2599182	2599838	hyfA				*				
2602604	2604044	b2484			*					
2604055	2604706	b2485			*					
2604710	2606291	b2486			*					
2608726	2609484	hyfI		*						
2611954	2612802	focAfocB		*						
2624715	2626958	b2503		*						
2627083	2627275	b2504			*	*				
2627585	2628104	b2505			*	*				
2628119	2628659	b2506			*					
2633392	2633644	b2510			*	*				
2653095	2654465	b2523								*
2654556	2654756	b2524								*
2654768	2655103	b2525								*
2655105	2656955	b2526								*
2662383	2663264	b2534		*						
2663434	2664735	csiE		*						
2666026	2666916	alsR		*	*					
2666825	2668187	b2538			*					
2668183	2668702	b2539			*					
2668701	2669022	b2540			*					

<i>E. coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW								
begin	end		16	35	34	14	49	99	97.5	95	
2669018	2669831	b2541			*						
2669840	2671043	b2542			*						
2671067	2671562	b2543			*	*					
2671609	2672482	b2544			*						
2672493	2673588	b2545			*						
2673620	2674619	b2546			*						
2674643	2676155	b2547			*						
2676177	2677161	mglB		*	*						
2677257	2680632	b2549			*						
2680650	2681850	b2550			*						
2682274	2683527	glyA		*							
2697683	2697943	yfhL				*					
2710047	2710904	yfiC		*							
2712459	2713385	yfiE		*							
2717219	2717941	yfiP		*							
2722468	2723766	kgtP		*					*		
2732323	2733054	yfiH		*							
2734706	2734913	b2596			*	*					
2735621	2735668	pheL					*				
2739114	2739519	yfiL	*		*	*	*				
2739668	2740187	b2603			*	*					
2740403	2741629	yfiN		*							
2741418	2741901	yfiB			*						
2748136	2748729	grpE		*							
2752309	2752785	b2619	*								
2754180	2755421	intA	*	*	*	*	*	*	*	*	
2755665	2756621	yfjH	*	*	*	*	*	*	*	*	
2756665	2756877	alpA	*		*	*	*	*	*	*	
2757006	2758415	yfjI	*	*	*	*	*	*	*	*	
2758568	2759194	yfjJ	*		*	*	*	*	*	*	
2759145	2761335	yfjK		*	*	*	*	*	*	*	
2761331	2762948	yfjL		*	*	*	*	*	*	*	
2763307	2763571	yfjM	*		*	*	*	*	*	*	
2763712	2764786	yfjN	*	*	*	*	*	*	*	*	
2764829	2765150	yfjO	*		*			*	*	*	
2765498	2766368	b2632			*			*	*	*	
2766459	2767281	b2633			*				*	*	
2767497	2768199	b2634			*						
2768310	2768702	b2635				*					
2768083	2768920	b2636			*	*					
2768943	2769411	b2637			*					*	
2769635	2769950	b2638			*	*	*	*	*	*	
2770188	2770706	b2639				*	*	*	*	*	
2770857	2771057	b2640				*	*	*	*	*	
2770997	2771113	b2641				*	*	*	*	*	
2771113	2772817	yfjW	*	*	*	*	*	*	*	*	
2773714	2774173	b2643			*		*	*	*	*	
2774181	2774664	b2644			*	*	*	*	*	*	
2774910	2775228	b2645			*	*	*	*	*	*	
2775248	2775578	b2646	*		*						

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
2775941	2780651	ypjA	*	*	*	*		*	*	*
2780859	2781003	pinH	*		*	*	*	*	*	*
2781432	2782224	ypjB	*	*	*	*	*	*	*	*
2782323	2782806	ypjC	*		*	*	*	*	*	*
2783015	2783135	ygaQ	*		*	*	*	*	*	*
2783593	2783767	ygaR	*		*	*	*	*	*	*
2784190	2784523	yqaC	*		*	*	*	*	*	*
2784541	2785036	yqaD	*		*	*	*	*	*	*
2785040	2785229	b2656	*		*		*	*	*	*
2785400	2786033	b2657	*		*	*		*	*	*
2786171	2786444	b2658	*		*	*		*	*	*
2787937	2789271	b2660					*	*	*	*
2789294	2790742	b2661					*	*	*	*
2790756	2792036	b2662					*	*	*	*
2792274	2793674	b2663						*	*	*
2795541	2796065	ygaP	*		*					
2797444	2797789	ygaC			*					
2802836	2804038	proV		*						
2807638	2808375	b2682		*						
2828572	2829085	ygaA			*					
2831935	2833068	b2711								*
2833196	2835448	b2712								*
2841466	2842233	hycG	*							*
2842785	2844494	hycE	*				*	*	*	*
2844512	2845435	hycD	*				*	*	*	*
2845438	2847264	hycC	*				*	*	*	*
2847261	2847872	hycB	*				*	*	*	*
2847997	2848458	b2725								*
2857558	2858215	b2734			*	*				
2858490	2859287	ygbI		*						
2862259	2863035	ygbM		*	*					
2865637	2866776	nlpD		*		*				
2874604	2875641	iap		*						
2876366	2876717	ygbF			*	*	*			
2876652	2877570	ygbT		*	*	*	*			
2877585	2878185	ygcH	*		*	*	*	*	*	*
2878171	2878852	ygcI	*		*	*	*	*	*	*
2878848	2879940	ygcJ	*	*	*		*	*	*	*
2879952	2880435	ygcK	*		*	*	*	*	*	*
2880427	2881936	ygcL	*	*	*	*	*	*	*	*
2882350	2885017	ygcB	*	*	*	*	*	*	*	*
2890011	2890377	b2765			*					
2890424	2891726	b2766			*					
2891680	2891977	b2767			*					
2891993	2892569	b2768			*					
2892716	2893610	b2769			*					
2893643	2894360	b2770			*					
2894331	2895741	b2771			*					
2895762	2896557	b2772			*					
2896559	2896925	b2773			*					

<i>E coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW								
begin	end		16	35	34	14	49	99	97.5	95	
2896933	2897215	b2774			*						
2897284	2898145	ygcW		*	*						
2898388	2898997	b2775			*					*	
2898920	2899667	b2776			*			*	*	*	
2899693	2901172	ygcE			*		*	*	*	*	
2902545	2903217	b2777			*		*	*	*	*	
2903440	2904382	ygcG	*	*	*	*	*	*	*	*	
2908554	2908890	chpA	*		*	*	*				
2908889	2909138	chpR			*						
2926251	2927540	sdaC		*							
2928987	2929832	exo		*							
2931063	2931710	fucA				*					
2932257	2933573	fucP		*		*					
2935460	2936908	fucK		*							
2939672	2940589	gcvA		*							
2960463	2960786	ppdC				*					
2961175	2961738	ppdB		*							
2969069	2969288	b2833			*						
2981310	2982146	kduI		*							
2982433	2983617	yqeF		*			*	*	*	*	
2983869	2985098	b2845	*	*	*	*	*	*	*	*	
2985498	2986190	yqeH	*		*	*	*	*	*	*	
2986524	2987333	yqeI	*	*	*	*	*	*	*	*	
2987314	2987808	yqeJ	*		*	*	*	*	*	*	
2987957	2988394	yqeK	*		*	*	*	*	*	*	
2988576	2989022	ygeF	*		*	*	*	*	*	*	
2989290	2989781	ygeG	*		*	*	*	*	*	*	
2990116	2991492	ygeH	*	*	*	*	*	*	*	*	
2991660	2991878	ygeI	*		*	*	*	*	*	*	
2992021	2992437	pbl	*		*	*	*	*	*	*	
2992482	2992928	ygeK	*		*	*	*	*	*	*	
2992959	2993114	b2856	*		*	*	*	*	*	*	
2993336	2993767	b2857	*		*	*	*	*	*	*	
2993770	2994042	ygeN	*		*	*	*	*	*	*	
2993984	2994409	ygeO	*		*	*	*	*	*	*	
2994394	2995299	yi224IS2		*	*		*	*	*	*	
2995489	2995789	ygeP			*		*	*	*	*	
2995711	2996010	IS2	*		*	*	*	*	*	*	
2996056	2996892	ygeQ	*	*	*	*	*	*	*	*	
2997158	2997937	glyU	*	*		*					
2998145	3000404	b2866			*						
3000414	3001293	b2867			*						
3001289	3001769	b2868			*						
3001808	3003587	ygeV		*	*	*					
3004133	3005225	b2870			*						
3005308	3006505	b2871			*						
3006562	3007774	b2872			*						
3007814	3009212	b2873			*						
3009259	3010192	b2874			*						
3010412	3012038	b2875			*						

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
3012085	3012793	b2876		*	*	*				
3012958	3013537	ygfJ			*	*	*			
3013858	3016957	b2878			*					
3016893	3018288	b2879			*					
3018338	3019118	b2880			*					
3019114	3021985	b2881			*					
3022092	3023550	ygfO		*	*					
3023564	3024884	b2883			*					
3025455	3026286	b2885			*					
3026321	3026813	b2886			*					
3026809	3028744	ygfT		*	*					
3029095	3030613	ygfU		*	*					
3031677	3033194	lysS		*						
3033204	3034302	prfB		*				*		
3054261	3054809	ygfA		*						
3057178	3057409	b2915			*	*				
3058647	3060792	sbm			*					
3060784	3061780	ygfD			*					
3061748	3062576	b2919			*					
3062599	3064078	b2920			*					
3064074	3064986	ygfI		*	*					
3066967	3067827	yggB		*						
3071996	3072709	yggC		*	*					
3072483	3072993	yggD			*					
3073014	3073980	yggF			*					
3073976	3074966	b2931			*					
3074896	3075253	b2932			*	*				
3075267	3076656	cmtA			*					
3076683	3077127	cmtB	*		*			*		
3079806	3080690	yggG		*						
3080896	3081816	speB		*						
3083721	3083868	yqgB			*	*	*			
3083988	3084204	yqgC			*	*	*			
3084200	3084452	yqgD			*	*				
3096577	3097584	yggM		*						
3108389	3108926	b2968			*					
3108927	3109788	b2969			*					
3109853	3110720	b2970			*					
3110866	3111277	yghG			*	*	*			
3111342	3112275	b2972		*	*	*				
3112349	3114896	b2973			*					
3114883	3116911	b2974			*					
3117395	3119078	b2975			*					
3119432	3121604	glcB			*					
3121625	3122030	glcG			*					
3122034	3124320	glcE & glcF			*					
3124319	3125819	glcD			*					
3126069	3126834	glcC			*					
3126840	3128013	b2981			*					
3127975	3128992	IS5L			*					

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
3129138	3130116	b2983			*					
3130251	3131010	b2984			*					
3131041	3131755	yghS		*	*					
3131928	3132621	yghT			*		*			
3148737	3148982	b3004				*				
3149771	3149927	b3007			*	*				
3155442	3155736	yqhG		*	*					
3155768	3156371	b3013			*					
3156421	3156679	b3014			*					
3163904	3165512	b3020			*					
3165644	3166040	ygiT			*	*	*			
3166041	3166338	ygiU			*	*	*			
3166542	3167025	b3023			*					
3169672	3170005	ygiZ			*	*	*			
3174874	3175296	yqiB				*				
3177612	3177872	ygiA				*				
3183208	3183760	ygiL	*		*			*	*	
3183981	3184347	IS2			*			*	*	
3184304	3185210	IS2		*	*		*	*	*	
3185194	3187660	yqiG	*	*	*	*	*	*	*	*
3187666	3188425	yqiH	*	*	*	*	*	*	*	*
3188426	3189491	yqiI	*	*	*	*	*	*	*	*
3189533	3189734	glgS	*		*		*	*	*	*
3190002	3190632	yqiJ	*		*	*	*	*	*	*
3190880	3192541	b3051						*	*	
3194500	3197000	NF								
3202743	3203676	ygiP		*	*					
3218334	3218667	ygjH			*					
3218885	3219869	ebgR			*					
3220016	3223145	ebgA			*					
3223141	3223591	ebgC			*					
3223653	3225087	ygjI			*					
3225220	3226291	ygjJ			*					
3226307	3228659	ygjK			*					
3231145	3231562	ygjM			*					
3231558	3231873	ygjN			*	*	*			
3250551	3250907	yhaI				*				
3251959	3252660	yhaK		*						
3260093	3261313	tdcD		*						
3261106	3262438	tdcC			*		*	*	*	*
3262459	3263449	tdcB	*		*		*	*	*	*
3263547	3264486	tdcA	*		*	*	*	*	*	*
3264674	3265019	tdcR			*	*	*	*	*	*
3265253	3265814	yhaB			*	*	*	*	*	*
3265835	3267023	yhaC	*		*	*	*	*	*	*
3267083	3267248	b3122			*	*	*	*	*	*
3274421	3274757	sohA			*	*				
3274756	3275221	yhaV			*	*	*			
3275275	3276085	agaR			*					
3276333	3277614	agaZ			*					

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
3277600	3278110	agaV			*					
3278120	3278522	agaW			*					
3278541	3279033	agaA			*					
3279394	3280549	agaS			*					
3281588	3282065	agaB			*					
3282103	3282907	agaC			*					
3282896	3283688	agaD			*					*
3283688	3284444	agaI	*		*					*
3284844	3285429	yraH			*					*
3285508	3286204	yraI			*	*	*		*	*
3286232	3288749	yraJ	*	*	*			*	*	*
3288759	3289851	yraK			*	*	*			
3293035	3293430	yraN				*				
3303612	3305552	b3162								*
3305681	3306565	b3163								*
3310418	3310819	b3167						*	*	*
3310983	3313655	b3168					*	*	*	*
3313680	3315167	b3169						*	*	*
3305681	3306565	yhbM	*							
3317629	3319272	yhbX	*	*	*	*				
3334190	3334459	yrbA				*				
3346722	3347450	yrbMmtgA		*						
3353500	3356500	NF								
3358811	3359575	gltF	*	*	*	*	*	*	*	*
3359747	3360421	yhcA	*		*	*	*	*	*	*
3360442	3362823	yhcD	*	*	*	*	*	*	*	*
3362820	3363299	yhcE	*		*	*	*			*
3363113	3364130	IS5R			*					
3364561	3365277	yhcF	*	*	*	*	*			
3365462	3366589	yhcG		*		*				
3372280	3373648	yhcL			*					
3382898	3383213	b3238			*					
3383268	3383541	b3239			*					
3386769	3387041	yhcR				*				
3401927	3402029	b3254			*	*				
3407917	3408882	yhdG	*			*				
3409284	3410174	yhdJ	*							
3410033	3410213	yhdU			*		*			
3410440	3411102	envR				*				
3416561	3417479	yhdW	*	*						
3417528	3418635	yhdX	*	*						
3418733	3419840	yhdY			*					
3419847	3420606	yhdZ	*	*	*					
3426657	3427427	yrdA	*			*				
3427403	3427660	yrdB				*				
3427657	3428475	aroE	*							
3429057	3429566	yrdD				*				
3430212	3430974	b3286			*					
3430074	3430382	smf_2				*	*			
3430436	3431197	smf_1	*	*	*	*				

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
3431103	3431613	def			*					
3432844	3434133	sun		*						
3442180	3442359	b3302								*
3442363	3442866	b3303								*
3442881	3443234	b3304								*
3443244	3443777	b3305						*		*
3443790	3444182	b3306						*		*
3444216	3444521	b3307						*		*
3444536	3445075	b3308						*		*
3445090	3445404	b3309					*	*		*
3445415	3445786	b3310					*	*		*
3445951	3446205	b3311					*	*		*
3446205	3446396	b3312					*	*		*
3446396	3446806	b3313					*	*		*
3446819	3447520	b3314					*	*		*
3447538	3447870	b3315					*	*		*
3447885	3448163	b3316					*	*		*
3448180	3449001	rplB	*				*	*	*	*
3449019	3449321	b3318					*	*		*
3449318	3449923	b3319						*		*
3449934	3450563	b3320						*		*
3450922	3451342	pinO			*	*				*
3451343	3452813	yheD	*	*	*	*				
3452992	3453808	yheE	*	*	*	*				
3453779	3455744	yheF	*	*						
3455753	3457235	yheG	*	*						
3457231	3458428	hofF			*					
3458437	3458875	hofG			*					
3458882	3459392	hofH			*					
3459349	3459766	yheH			*					
3459758	3460346	yheI			*					
3460338	3461322	yheJ	*	*	*					
3461333	3462500	yheK	*	*	*					
3462472	3462958	pshM			*	*				
3462957	3463635	hofD			*	*				
3464434	3464628	yheA				*				
3464574	3467268	yheB	*	*						*
3467782	3468966	b3339					*	*	*	*
3469037	3471151	b3340					*	*	*	*
3471179	3471718	b3341					*	*	*	*
3489475	3489642	yhfG					*			
3494188	3494514	nirD	*							
3497272	3498661	yhfM			*					
3498660	3499704	yhfN			*					
3499666	3500116	yhfO			*					
3500180	3500579	yhfP			*					
3500582	3501368	yhfQ			*					
3501401	3502199	yhfR			*					
3502350	3503436	yhfS			*					
3503447	3504719	yhfT			*					

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
3637015	3637350	yhiO			*			*	*	*
3648691	3649474	yhiS	*	*	*	*	*	*	*	*
3649582	3650599	IS5T			*			*	*	*
3651328	3651928	slp	*		*			*	*	*
3652083	3652614	yhiF	*		*	*		*	*	*
3652655	3653303	yhiD	*		*			*	*	*
3653366	3653705	hdeB	*		*			*	*	*
3653808	3654141	hdeA	*		*			*	*	*
3654395	3654968	hdeD			*			*	*	*
3655766	3656294	yhiE	*		*	*	*	*	*	*
3661290	3662019	yhiW		*	*	*				
3662386	3663211	yhiX	*	*	*	*	*	*	*	*
3663580	3664981	gadA			*			*	*	*
3663810	3665210	b3517						*	*	*
3693391	3693580	b3535			*					
3694087	3695658	yhjS		*						
3698192	3699463	yhjV		*						
3681260	3683215	b3529							*	*
3683330	3686830	b3530						*	*	*
3686784	3687890	b3531						*	*	*
3710721	3711284	tag		*						
3715963	3716793	b3554							*	*
3717107	3717397	yiaG			*				*	*
3717678	3717890	b3556							*	*
3718072	3718594	IS150			*	*			*	*
3718590	3719442	t150	*	*	*	*	*		*	*
3723516	3724511	yiaH		*						
3724553	3724993	yiaA	*		*					
3725036	3725389	yiaB	*		*					
3725546	3727000	xylB		*						
3728760	3729752	xylF		*						
3729830	3731371	xylG		*						
3732608	3733786	xylR		*						
3733982	3734806	bax		*		*				
3735126	3737156	malS		*						
3741136	3741604	yiaL			*	*				
3741721	3742195	yiaM	*		*	*				
3748522	3749263	yiaT		*	*					
3749386	3750361	yiaU		*	*					
3750357	3751494	yiaV			*					
3751499	3751823	yiaW			*					
3754070	3755219	yiaY			*					
3757485	3758876	b3591					*	*	*	*
3758974	3759582	b3592					*	*	*	*
3759576	3763710	rhsA		*	*		*	*	*	*
3763730	3764573	yibA	*	*	*	*	*	*	*	*
3764614	3765316	yibJ		*	*		*	*	*	*
3765570	3766032	yibG		*	*	*	*	*	*	*
3767870	3769006	b3597					*	*	*	*
3790217	3791090	b3618		*						

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
3786674	3787708	yibD		*						
3790453	3791325	htrL		*		*	*			
3791392	3792325	rfaD			*			*	*	*
3792334	3793381	rfaF			*		*	*	*	*
3793384	3794344	rfaC		*	*		*	*	*	*
3794353	3795613	rfaL	*	*	*	*	*	*	*	*
3795644	3796718	rfaK	*	*	*	*	*	*	*	*
3796750	3797602	rfaZ	*	*	*	*	*	*	*	*
3797672	3798371	rfaY	*		*	*	*	*	*	*
3798388	3799405	rfaJ	*	*	*	*	*	*	*	*
3799444	3800464	rfaI	*	*	*	*	*	*	*	*
3800463	3801573	rfaB	*	*	*	*	*	*	*	*
3801586	3802522	rfaS	*	*	*	*	*	*	*	*
3802558	3803356	rfaP	*	*	*	*	*	*	*	*
3803348	3804473	rfaG	*	*	*	*	*	*	*	*
3804469	3805504	rfaQ	*	*	*	*	*	*	*	*
3809518	3810192	radC				*				
3815375	3816211	dinD		*			*			
3817115	3818803	yicF		*						
3834580	3835764	yicK	*		*	*		*	*	
3835875	3836798	yicL	*					*	*	
3836802	3837620	nlpA	*							
3840082	3841494	yicO	*							
3841371	3843138	yicP			*					
3846261	3847766	b3668						*	*	
3847763	3848353	b3669						*	*	
3848429	3848719	b3670						*	*	
3850517	3850615	ivbL				*				
3853235	3853597	yidG				*				
3854042	3854491	yidI				*				
3854318	3855812	yidJ			*					
3855808	3857524	yidK			*					
3857660	3858584	yidL		*	*	*				
3858756	3859395	glvG			*					
3865280	3865687	yidQ				*				
3866763	3867849	yidS		*	*					
3871224	3872102	dgoKf292		*						
3873122	3873793	yidX		*	*	*	*			
3874475	3874883	yidB			*					
3885843	3885918	tnaL			*					
3886123	3887554	tnaA			*					
3887644	3888892	tnaB		*	*					
3891498	3892259	yieE		*						
3894914	3895382	yieI			*	*				
3895430	3896018	yieJ			*	*	*			
3898232	3899848	yieC		*						
3899917	3901329	bglB		*						
3901126	3903004	bglF			*					
3903137	3903974	bglG		*	*	*				
3913181	3913600	atpC=uncC		*					*	

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
3915944	3917485	atpA	*						*	*
3919688	3920080	atpI				*				
3936811	3938238	yieOf475	*							
3945189	3945590	pssR				*				
3946072	3947622	yifB	*							
3951132	3952949	b3771						*	*	
3952952	3954496	b3772						*	*	
3954548	3955441	b3773						*	*	
3956925	3957207	ppiC			*					
3957627	3957902	b3776				*				
3957857	3958117	yifN				*	*			
3963846	3963947	rhoL				*				
3975137	3975361	yifM_1				*				
3981731	3983387	aslA			*					
3986701	3987441	hemD	*							
3991463	3991948	b3808				*				
3993900	3994796	b3811						*	*	
3994796	3995512	b3812						*	*	
3995596	3997758	b3813						*	*	
3997669	3997969	b3814			*					
3997947	3998433	yigE			*					
3999794	4000175	yigF	*		*	*	*			
4000188	4000605	yigG			*	*	*			
4008666	4009565	yigMo299		*						
4012721	4013719	ysgA				*				
4019665	4020006	b3837				*				
4021585	4021926	yigW_2				*				
4038929	4039441	mobB					*			
4039996	4040982	yihE	*							
4041737	4043209	yihF	*	*			*	*	*	
4043250	4044182	yihG	*			*				
4058026	4058736	yihL	*	*				*	*	
4058744	4059724	yihM	*	*			*	*	*	
4059826	4061091	yihN	*	*			*	*	*	
4061182	4061874	yihO	*	*	*		*	*	*	
4061889	4063352	yihO	*				*	*	*	
4067055	4067981	yihR	*							
4076584	4076830	yiiE			*	*				
4077047	4077290	yiiF			*	*	*			
4084322	4085378	yiiG	*		*					
4085428	4087177	frvR			*					
4087176	4088247	frvX			*					
4088236	4089694	frvB			*					
4089698	4090142	frvA			*					
4095317	4096153	rhaS	*							
4096137	4097075	rhaR	*							
4099262	4100254	kdgT	*	*						
4100373	4101077	kdgTyiiM	*							
4104049	4104951	yiiP	*							
4110281	4110581	yiiS			*					

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
4289091	4290749	b4074								*
4296877	4298344	yjcP			*					
4298340	4300251	yjcQ			*					
4300391	4301423	yjcR			*					
4301925	4303923	yjcS			*					
4304183	4305113	yjcT			*					
4305096	4305792	yjcU			*					
4305802	4306783	yjcV			*					
4306761	4308294	yjcW			*					
4308420	4309356	yjcX		*	*					
4309414	4310338	rpiR		*	*	*				
4310663	4311113	rpiB			*					
4311123	4311531	phnQ			*	*	*	*	*	*
4311656	4312415	phnP	*		*		*	*	*	*
4312416	4312851	phnO	*		*		*	*	*	*
4312837	4313395	phnN	*		*		*	*	*	*
4313660	4314796	phnM	*		*		*	*	*	*
4314793	4315473	phnL	*		*		*	*	*	*
4315584	4316342	phnK	*		*		*	*	*	*
4316339	4317184	phnJ	*		*		*	*	*	*
4317177	4318241	phnI	*		*		*	*	*	*
4318241	4318825	phnH	*		*		*	*	*	*
4318822	4319274	phnG	*		*		*	*	*	*
4319275	4320000	phnF	*		*		*	*	*	*
4319755	4319977	b4103			*		*	*	*	*
4319973	4320594	phnE			*	*	*	*	*	*
4320648	4321665	phnD			*		*	*	*	*
4321689	4322478	phnC			*		*	*	*	*
4322610	4323054	phnB			*					
4323612	4323948	phnA			*					
4324348	4326577	yjdA			*					
4326606	4327452	yjcZ			*					
4334380	4335142	adiY		*	*	*	*			
4340959	4342368	melB		*						
4342141	4342771	yjdF			*					
4347609	4349240	b4125								*
4349221	4349451	yjdI				*				
4349297	4349570	yjdJ			*					*
4349796	4350093	yjdK			*	*	*	*		
4350778	4352295	lysS-like		*						
4354048	4356195	b4131					*	*	*	*
4356275	4357609	b4132					*	*	*	*
4357974	4359512	cadC	*	*	*	*	*	*	*	*
4370943	4371812	yjeJ	*							
4374303	4374770	sugE				*				
4375389	4376522	ampC	*	*						
4381375	4382919	yjeM	*							
4382605	4382920	yjeN			*	*				
4382916	4383231	yjeO			*					
4386970	4387938	psd	*							

<i>E coli</i>		Gene	Ref Ref Ref Ref Ref TW TW TW								
begin	end		16	35	34	14	49	99	97.5	95	
4504113	4504317	yjhE	*		*	*		*	*	*	
4504368	4504671	IS911	*		*			*	*	*	
4504673	4505825	IS30D	*	*	*	*		*	*	*	
4506165	4506762	b4285			*					*	
4506927	4507341	b4286			*	*					
4507897	4508665	fecE	*	*	*			*	*	*	
4508665	4509622	fecD	*		*			*	*	*	
4509618	4510617	fecC	*		*			*	*	*	
4510613	4511522	fecB	*		*			*	*	*	
4511560	4513885	fecA	*		*			*	*	*	
4513971	4514925	fecR	*		*			*	*	*	
4514921	4515443	fecI			*						
4515734	4516010	IS1F			*	*					
4516545	4517346	yjhU		*	*						
4518059	4519226	yjhF			*						
4519332	4521300	yjhG			*						
4521310	4522270	yjhH			*						
4522220	4523009	yjhI		*	*	*	*				
4523674	4524456	sgcR		*							
4524473	4525105	sgcE				*					
4528098	4529249	sgcX		*							
4532583	4533599	yjhR	*	*	*	*	*	*	*	*	
4534182	4535162	yjhS	*	*	*	*	*	*	*	*	
4535227	4536441	yjhT	*	*	*	*	*	*	*	*	
4535990	4536716	yjhA		*	*	*	*	*	*	*	
4538162	4538765	fimB		*	*	*	*	*	*	*	
4539242	4539839	fimE		*	*	*	*	*	*	*	
4540320	4540869	fimA		*			*	*	*	*	
4540825	4541473	fimI		*	*		*	*	*	*	
4541509	4542235	fimC	*	*	*	*	*	*	*	*	
4542302	4544939	fimD_2	*	*			*	*	*	*	
4544948	4545479	fimF			*	*	*				
4545491	4545995	fimG			*	*					
4546014	4546917	fimH	*	*							
4552695	4553526	yjiC	*	*	*	*	*				
4554189	4554591	yjiD		*	*						
4558033	4558690	yjiI		*	*						
4559948	4560920	yjiK	*	*	*						
4566927	4567487	yjiQ			*						
4568956	4569121	b4341		*							
4569571	4571137	yjiT	*	*	*	*				*	
4571340	4571670	b4342		*						*	
4571704	4573245	yjiU	*							*	
4571723	4572596	yjiV		*						*	
4572799	4574062	mcrD		*				*	*	*	
4574118	4575165	mcrC	*	*	*	*	*	*	*	*	
4575164	4576562	mcrB	*	*	*	*	*	*	*	*	
4576705	4577104	yjiW		*			*	*	*	*	
4577274	4578669	hsdS	*	*	*	*	*	*	*	*	
4578665	4580255	hsdM		*							

<i>E coli</i>		Gene	Ref	Ref	Ref	Ref	Ref	TW	TW	TW
begin	end		16	35	34	14	49	99	97.5	95
4580455	4584022	hsdR			*					
4584155	4585070	mrr		*	*					
4590568	4591147	yjiZ			*					
4591143	4591929	yjjL			*					
4592143	4592950	yjjM		*	*	*				
4593180	4594218	yjjN			*					
4598547	4599086	dnaT	*							
4598829	4599156	yjjB			*					
4599657	4600490	yjjP		*		*				
4601046	4601771	yjjQ		*	*	*	*			
4601365	4602043	yjjR			*	*				
4612249	4613112	yjjW		*						
4618974	4620306	yjjJ			*					
4637608	4637749	yjjY			*	*				