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TABLE S1
Strains used in the study

Designation		Relevant characteristics	Reference
In the lab strain collection	In this study	_	
JB1853	R1	$IIeRS~(H594Y, \underline{C}AC1780 \rightarrow \underline{T}AC)$	(PAULANDER et al.
TD 1055	D.O.	H BS (E50CL TECUTOR > TECU	2007a) "
JB1855	R2	IIeRS (F596L, TT <u>C</u> 1788 ->TT <u>C</u> )	"
JB1850	R3	IleRS (WV631L, T <u>GGG</u> TG1889-1891 ->TTG)	
DA8947	C1	Evolved from R1: IleRS (H594Y) and expression mutation	(PAULANDER et al.
	610	C (-591)->A	2007a) and this study
DA11020	C2	Evolved from R1: IleRS (H594Y) and expression mutation C (-1036)->T	"
DA11022	C3	Evolved from R1: IleRS (H594Y) and 4-fold amplification of <i>ileS</i>	"
DA8992	C4	Evolved from R2: IleRS (F596L) and expression mutation C (-577)->T	"
DA9162	C5	Evolved from R2: IleRS (F596L) and expression mutation G (-22) ->T	"
DA8995	C6	Evolved from R2: IleRS (F596L) and expression mutation C (-1036)->T	"
DA9163	C7	Evolved from R2: IleRS (F596L) 2-fold amplification of ileS	"
DA9167	С8	and expression mutation T (-421)->C  Evolved from R2: IleRS (F596L) 2-fold amplification of <i>ileS</i>	«
DA9171	С9	and expression mutation T (-405)->C  Evolved from R2: IleRS (F596L) 2-fold amplification of <i>ileS</i> and expression mutation T (-405)->C	"
DA9169	C10	Evolved from R2: IleRS (F596L) and 4-fold amplification of <i>ileS</i>	ш
DA9150	C11	Evolved from R3: IleRS (WV631L), 2-fold amplification of <i>ileS</i> and expression mutation C (-567)->T	«
DA9155	C12	Evolved from R3: IleRS (WV631L) and 6-fold amplification of <i>ileS</i>	«
DA13883	C12-1	Evolved from C12: IleRS (WV631L) and 2-fold amplification of <i>ileS</i>	This study
DA13884	C12-3	Evolved from C12: IleRS (WV631L, Q420H)	66
DA13867	C12-4	Evolved from C12: IleRS (WV631L) and 2-fold amplification of <i>ileS</i>	"
DA13855	C12-5	Evolved from C12: IleRS (WV631L, Q420H)	66

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DA13868	DA13885	C12-6	Evolved from C12: IleRS (WV631L) and 2-fold	"
DA13876 C12-17 Evolved from C12: IleRS (WV631L, P184T) "  DA13886 C12-8 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13869 C12-10 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13887 C12-11 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13870 C12-12 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13871 C12-13 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13888 C12-14 Evolved from C12: IleRS (WV631L) and 5-fold amplification of ileS  DA13888 C12-14 Evolved from C12: IleRS (WV631L) and 3-fold amplification of ileS  DA13874 C12-16 Evolved from C12: IleRS (WV631L) and 3-fold amplification of ileS  DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "  Evolved from C12: IleRS (WV631L) and 4-fold "  Evolved from C12: IleRS (WV631L) and 4-fold "			amplification of ileS	
DA13856 C12-9 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13869 C12-10 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13887 C12-11 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13870 C12-12 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13871 C12-13 Evolved from C12: IleRS (WV631L) and 5-fold amplification of $ileS$ DA13888 C12-14 Evolved from C12: IleRS (WV631L) and 3-fold amplification of $ileS$ DA13874 C12-16 Evolved from C12: IleRS (WV631L) and 3-fold amplification of $ileS$ DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "	DA13868	C12-7	Evolved from C12: IleRS (WV631L, Q420H)	"
DA13869   C12-10   Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS	DA13886	C12-8	Evolved from C12: IleRS (WV631L, P184T)	"
DA13869 C12-10 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13887 C12-11 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13870 C12-12 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13871 C12-13 Evolved from C12: IleRS (WV631L) and 5-fold amplification of $ileS$ DA13888 C12-14 Evolved from C12: IleRS (WV631L) and 3-fold amplification of $ileS$ DA13874 C12-16 Evolved from C12: IleRS (WV631L) and 3-fold amplification of $ileS$ DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold amplification of $ileS$ DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "	DA13856	C12-9	Evolved from C12: IleRS (WV631L) and 2-fold	"
DA13876   C12-10   Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS			amplification of ileS	
DA13887  C12-11 Evolved from C12: IleRS (WV631L) and 2-fold amplification of <i>ileS</i> DA13870  C12-12 Evolved from C12: IleRS (WV631L) and 2-fold amplification of <i>ileS</i> DA13871  C12-13 Evolved from C12: IleRS (WV631L) and 5-fold amplification of <i>ileS</i> DA13888  C12-14 Evolved from C12: IleRS (WV631L) and 3-fold amplification of <i>ileS</i> DA13874  C12-16 Evolved from C12: IleRS (WV631L) and 3-fold amplification of <i>ileS</i> DA13876  C12-17 Evolved from C12: IleRS (WV631L) and 2-fold amplification of <i>ileS</i> DA13872  C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "	DA13869	C12-10	Evolved from C12: IleRS (WV631L) and 2-fold	"
DA13870 C12-12 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13871 C12-13 Evolved from C12: IleRS (WV631L) and 5-fold amplification of ileS  DA13888 C12-14 Evolved from C12: IleRS (WV631L) and 3-fold amplification of ileS  DA13874 C12-16 Evolved from C12: IleRS (WV631L) and 3-fold amplification of ileS  DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "			amplification of ileS	
DA13870 C12-12 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13871 C12-13 Evolved from C12: IleRS (WV631L) and 5-fold amplification of ileS  DA13888 C12-14 Evolved from C12: IleRS (WV631L) and 3-fold amplification of ileS  DA13874 C12-16 Evolved from C12: IleRS (WV631L) and 3-fold amplification of ileS  DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS  DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold  "  Evolved from C12: IleRS (WV631L) and 4-fold	DA13887	C12-11	Evolved from C12: IleRS (WV631L) and 2-fold	"
DA13870  C12-12  Evolved from C12: fleRS (WV631L) and 2-fold amplification of ileS  DA13881  C12-14  Evolved from C12: fleRS (WV631L) and 3-fold amplification of ileS  DA13874  C12-16  Evolved from C12: fleRS (WV631L) and 3-fold amplification of ileS  DA13876  C12-17  Evolved from C12: fleRS (WV631L) and 3-fold amplification of ileS  DA13876  C12-17  Evolved from C12: fleRS (WV631L) and 2-fold amplification of ileS  DA13872  C12-18  Evolved from C12: fleRS (WV631L) and 4-fold  "  "  "  "  "  "  "  "  "  "  "  "  "			amplification of ileS	
DA13871       C12-13       Evolved from C12: IleRS (WV631L) and 5-fold       "         DA13888       C12-14       Evolved from C12: IleRS (WV631L) and 3-fold       "         DA13874       C12-16       Evolved from C12: IleRS (WV631L) and 3-fold       "         DA13876       C12-17       Evolved from C12: IleRS (WV631L) and 2-fold       "         DA13872       C12-18       Evolved from C12: IleRS (WV631L) and 4-fold       "	DA13870	C12-12	Evolved from C12: IleRS (WV631L) and 2-fold	"
DA13888 C12-14 Evolved from C12: IleRS (WV631L) and 3-fold " amplification of $ileS$ DA13874 C12-16 Evolved from C12: IleRS (WV631L) and 3-fold " amplification of $ileS$ DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold " amplification of $ileS$ DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "			amplification of ileS	
DA13888 C12-14 Evolved from C12: IleRS (WV631L) and 3-fold "	DA13871	C12-13	Evolved from C12: IleRS (WV631L) and 5-fold	"
DA13874 C12-16 Evolved from C12: IleRS (WV631L) and 3-fold " amplification of $ileS$ DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold " amplification of $ileS$ DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "			amplification of ileS	
DA13874       C12-16       Evolved from C12: IleRS (WV631L) and 3-fold amplification of ileS       "         DA13876       C12-17       Evolved from C12: IleRS (WV631L) and 2-fold amplification of ileS       "         DA13872       C12-18       Evolved from C12: IleRS (WV631L) and 4-fold       "	DA13888	C12-14	Evolved from C12: IleRS (WV631L) and 3-fold	"
DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold " amplification of $ileS$ DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "			amplification of ileS	
DA13876 C12-17 Evolved from C12: IleRS (WV631L) and 2-fold " amplification of ileS  DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "	DA13874	C12-16	Evolved from C12: IleRS (WV631L) and 3-fold	"
DA13872 C12-17 Evolved from C12: fleRS (WV631L) and 2-fold amplification of <i>ileS</i> Evolved from C12: fleRS (WV631L) and 4-fold "			amplification of ileS	
DA13872 C12-18 Evolved from C12: IleRS (WV631L) and 4-fold "	DA13876	C12-17	Evolved from C12: IleRS (WV631L) and 2-fold	"
			amplification of ileS	
amplification of ileS	DA13872	C12-18	Evolved from C12: IleRS (WV631L) and 4-fold	"
			amplification of ileS	