

**Table S2**

<b>Strain name</b>	<b>Description</b>	<b>Resistance</b>	<b>Reference</b>
ICC169	<i>C. rodentium</i> WT, spontaneous Nal resistant mutant	Nal	(37)
ICC180	ICC169 constitutively expressing the <i>lux</i> bioluminescence cassette	Nal/Kan	(38)
ICC180 $\Delta$ <i>grlR</i> (ICC1410)	ICC180 derivative, $\Delta$ <i>grlR</i> :: <i>CmR</i>	Nal/Kan/Cm	(14)
<i>C. amalonaticus</i> <sup>C3H</sup> (ICC3000)	C3H/HeN non-permissive mouse stool isolate	N/a	This study
<i>C. amalonaticus</i> <sup>C3H</sup> SmR (ICC3001)	Spontaneous streptomycin resistant mutant of <i>C. amalonaticus</i> <sup>C3H</sup> (ICC3000)	Sm	This study
<i>C. amalonaticus</i> <sup>C3H</sup> $\Delta$ <i>ctsH4_2</i>	<i>C. amalonaticus</i> <sup>C3H</sup> -SmR (ICC3001) lacking gene <i>ctsH4_2</i>	Sm	This study
<i>C. amalonaticus</i> <sup>C3H</sup> $\Delta$ 03332	<i>C. amalonaticus</i> <sup>C3H</sup> -SmR (ICC3001) lacking gene 03332	Sm	This study
<i>C. amalonaticus</i> <sup>C3H</sup> $\Delta$ 00759	<i>C. amalonaticus</i> <sup>C3H</sup> -SmR (ICC3001) lacking gene 00759	Sm	This study
<i>C. amalonaticus</i> <sup>C3H</sup> $\Delta$ <i>wapA_4</i>	<i>C. amalonaticus</i> <sup>C3H</sup> -SmR (ICC3001) lacking gene <i>wapA_4</i>	Sm	This study
<i>Esherichia</i> <sup>C57</sup>	<i>Esherichia</i> genus isolate from uninfected C57BL/6 mouse stool	N/a	This study
<i>Esherichia</i> <sup>C57</sup> -Rif	Spontaneous rifampicin resistant mutant of <i>Esherichia</i> <sup>C57</sup>	Rif	This study
ICC169-GFP	ICC169 harbouring the pULTRA-GFP plasmid	Nal/Gm	This study
ICC169-RFP	ICC169 harbouring the pULTRA-RFP plasmid	Nal/Gm	This study
<i>C. amalonaticus</i> <sup>C3H</sup> -GFP	<i>C. amalonaticus</i> <sup>C3H</sup> SmR (ICC3001) harbouring the pULTRA-GFP plasmid	Sm/Gm	This study
<i>C. amalonaticus</i> <sup>C3H</sup> -RFP	<i>C. amalonaticus</i> <sup>C3H</sup> SmR (ICC3001) harbouring the pULTRA-RFP plasmid	Sm/Gm	This study
<i>E. coli</i> CC118 $\lambda$ pir	Expressing the Pi protein for the replication of plasmids with the R6K origin	N/a	(39)
<i>E. coli</i> 1047 pRK2013	Helper strain for conjugation, Kanamycin-resistant.	Kan	(40)