

**Table S3. Bacteroidales strains used or created in this study**

Name	Genotype	Construction details	Reference/Source
<i>B. caccae</i> CL03T12C61	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. cellulosilyticus</i> CL09T06C25	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. dorei</i> CL03T12C01	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. dorei</i> CL06T03C031	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. eggerthii</i> CL11T00C20	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. finegoldii</i> CL09T03C10	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. fragilis</i> CL03T12C07	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. fragilis</i> CL05T12C13	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. ovatus</i> CL06T03C20	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. ovatus</i> CL09T03C03	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. stercoris</i> CL09T03C01	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. thetaiotaomicron</i> CL06T03C18	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. thetaiotaomicron</i> CL11T00C24	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. uniformis</i> CL12T12C23	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. vulgatus</i> CL06T03C24	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. vulgatus</i> CL09T03C04	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. vulgatus</i> CL10T00C06	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. vulgatus</i> CL11T00C01	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. xylanisolvens</i> CL03T12C04	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>P. merdae</i> CL06T03C08	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>P. merdae</i> CL09T00C40	wild-type	N/A	Zitomersky <i>et al.</i> , 2011
<i>B. fragilis</i> NCTC 9343	wild-type	N/A	ATCC. Cato & Johnson, 1976
<i>Bca</i> CL03QpLGB28	<i>B. caccae</i> CL03T12C61 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B.</i> <i>caccae</i> CL03T12C61, PCR confirmation using oLGB138 and oLGB139	This study
<i>Bce</i> CL09QpLGB28	<i>B. cellulosilyticus</i> CL09T06C25 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B.</i> <i>cellulosilyticus</i> CL09T06C25, PCR confirmation using oLGB138 and oLGB137	This study

Name	Genotype	Construction details	Reference/Source
<i>Bd</i> CL03ΩpLGB28	<i>B. dorei</i> CL03T12C01 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. dorei</i> CL03T12C01, PCR confirmation using oLGB138 and oLGB137	This study
<i>Bd</i> CL06ΩpLGB28	<i>B. dorei</i> CL06T03C031 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. dorei</i> CL06T03C031, PCR confirmation using oLGB138 and oLGB137	This study
<i>Bo</i> CL06ΩpLGB28	<i>B. ovatus</i> CL06T03C20 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. ovatus</i> CL06T03C20, PCR confirmation using oLGB138 and oLGB137	This study
<i>Bo</i> CL09ΩpLGB28	<i>B. ovatus</i> CL09T03C03 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. ovatus</i> CL09T03C03, PCR confirmation using oLGB138 and oLGB137	This study
<i>Bs</i> CL09ΩpLGB28	<i>B. stercoris</i> CL09T03C01 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. stercoris</i> CL09T03C01, PCR confirmation using oLGB138 and oLGB155	This study
<i>Bt</i> CL06ΩpLGB28	<i>B. thetaiotaomicron</i> CL06T03C18 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. thetaiotaomicron</i> CL06T03C18, PCR confirmation using oLGB138 and oLGB137+oLGB139	This study
<i>Bt</i> CL11ΩpLGB28	<i>B. thetaiotaomicron</i> CL11T00C24 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. thetaiotaomicron</i> CL11T00C24, PCR confirmation using oLGB138 and oLGB137+oLGB139	This study
<i>Bu</i> CL12ΩpLGB28	<i>B. uniformis</i> CL12T12C23 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. uniformis</i> CL12T12C23, PCR confirmation using oLGB138 and oLGB155	This study
<i>Bv</i> CL06ΩpLGB28	<i>B. vulgatus</i> CL06T03C24 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. vulgatus</i> CL06T03C24, PCR confirmation using oLGB138 and oLGB137	This study
<i>Bv</i> CL09ΩpLGB28	<i>B. vulgatus</i> CL09T03C04 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. vulgatus</i> CL09T03C04, PCR confirmation using oLGB138 and oLGB137	This study
<i>Bv</i> CL11ΩpLGB28	<i>B. vulgatus</i> CL11T00C01 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>B. vulgatus</i> CL11T00C01, PCR confirmation using oLGB138 and oLGB137	This study
<i>Pm</i> CL09ΩpLGB28	<i>P. merdae</i> CL09T00C40 with pLGB28 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB28 into <i>P. merdae</i> CL09T00C40, PCR confirmation using oLGB138 and oLGB154	This study
<i>Bv</i> CL11ΩpLGB32	<i>B. vulgatus</i> CL11T00C01 with pLGB32 integration	Conjugal transfer of pLGB32 into <i>B. vulgatus</i> CL11T00C01, PCR confirmation using oLGB128 and oLGB129	This study
<i>Bo</i> CL09ΩpLGB32	<i>B. ovatus</i> CL09T03C03 with pLGB32 integration	Conjugal transfer of pLGB32 into <i>B. ovatus</i> CL09T03C03, PCR confirmation using oLGB128 and oLGB129	This study
LGB43	<i>B. finegoldii</i> CL09T03C10, deletion of the GA1 T6SS (HMPREF1057_01517 to HMPREF1057_01551)	Conjugal transfer of pLGB18 into <i>B. finegoldii</i> , counterselection, PCR confirmation using oLGB33 and oLGB34 (set 1+2) or oLGB43 and oLGB164 (set 3+4)	This study

Name	Genotype	Construction details	Reference/Source
LGB82	<i>B. ovatus</i> CL09T03C03 $\Delta tetQ$ (AA414_04155)	Conjugal transfer of pLGB32 into <i>B. ovatus</i> , counterselection, PCR confirmation using oLGB128 and oLGB129	This study
LGB83	<i>P. merdae</i> CL09T00C40 with CTn341 excision	Conjugal transfer of pLGB33 into <i>P. merdae</i> , counterselection, PCR confirmation using oLGB128 and oLGB129 or oLGB160 and oLGB161	This study
LGB84	<i>B. fragilis</i> NCTC 9343 $\Delta ubb$ (BF9343_3779)	Conjugal transfer of pLGB34 into <i>B. fragilis</i> , counterselection, PCR confirmation using oLGB145 and oLGB146	This study
LGB85	<i>B. vulgatus</i> CL10T00C06 $\Delta CK234_00400-00401$	Conjugal transfer of pLGB35 into <i>B. vulgatus</i> , counterselection, PCR confirmation using oLGB149 and oLGB150	This study
LGB86	<i>B. fragilis</i> DS_166 with pLGB37 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB37 into <i>B. fragilis</i> , PCR confirmation using oLGB169 and oLGB170	This study
LGB87	<i>B. fragilis</i> US326 with pLGB37 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB37 into <i>B. fragilis</i> , PCR confirmation using oLGB169 and oLGB170	This study
LGB88	<i>B. fragilis</i> S36_L11 with pLGB37 integrated at <i>attBT2</i> site	Conjugal transfer of pLGB37 into <i>B. fragilis</i> , PCR confirmation using oLGB169 and oLGB170	This study

## References

- Cato EP, Johnson JL.(1976) Reinstatement of species rank for *Bacteroides fragilis*, *B. ovatus*, *B. distasonis*, *B. thetaiotaomicron*, and *B. vulgatus*: Designation of neotype strains for *Bacteroides fragilis* (Veillon and Zuber) Castellani and Chalmers and *Bacteroides thetaiotaomicron* (Distaso) Castellani and Chalmers. *Int. J. Syst. Bacteriol.* 26: 230-237.
- Zitomersky,N.L., Coyne,M.J. and Comstock,L.E. (2011) Longitudinal Analysis of the Prevalence, Maintenance, and IgA Response to Species of the Order Bacteroidales in the Human Gut. *Infection and Immunity*, **79**, 2012–2020.