Supplementary Table S1. Cell fatty acid (CFA) profiles of strains CD3:27, CD3:28^T, CD3:33, CD3:32, CD3:34 and related species

Fatty acid	**CD3:27** CCUG 60308	**CD3:28** CCUG 60371^T	**CD3:33** CCUG 60311	**CD3:32** CCUG 60372	**CD3:34** CCUG 60312	***P. histicola*** CCUG 55407^T	***P. melaninogenica*** CCUG4944B^T
C13:0 ISO	1.2	0	1.4	0	0	0.7	1.1
unknown 13.566 ECL	2.0	3.5	1.9	4.0	3.7	4.4	8.9
C14:0 ISO	3.6	3.1	3.6	3.4	3.5	4.9	5.5
C14:0	1.3	0	1.2	0.8	1.1	0.7	0.8
C15:0 ISO	12.8	9.7	12.9	10.3	9.6	10.9	14.6
C15:0 ANTEISO	40.7	42.5	40.4	38.5	38.9	33.5	29.2
C15:0	0	0	0	0	0	0	0.3
C16:0 ISO	1.4	1.8	1.6	1.4	1.9	2.5	2.1
C16:0	7.7	8.3	7.9	6.6	10.0	8.0	7.4
C17:0 ISO	0	0	0	1.5	1.9	2.5	3.7
C17:0 ANTEISO	1.0	2.0	1.3	1.4	2.4	1.4	1.0
C16:0 ISO 3OH	1.2	0	0	1.1	0	1.3	0.4
C16:0 3OH	3.5	4.0	4.6	3.6	3.5	2.7	1.5
C18:2 ω6,9c / C18:0 ANTE	7.5	7.9	7.2	7.8	7.7	10.4	4.2
C18:1 ω9c	4.6	4.6	4.9	3.9	5.4	3.3	2.8
C18:0	2.2	2.3	2.0	2.4	2.4	2.8	1.8
C17:0 ISO 3OH	9.4	9.0	9.2	12.4	8.2	9.9	12.3
C17:0 2OH	0	1.3	0	0.9	0	0	0
Total summed CFAs	100.1	100	100.1	100	100.2	99.9	97.6*

All strains were cultivated on Chocolate Agar medium, at 37 °C, anaerobically: 85 % N_2, 10 % H_2, 5 % CO_2
CFA values (w/w) were calculated as percentages of all CFAs detected for the strain. Individual CFAs were derived from mean values of multiple measurements and indicated as the nearest whole number
* In addition, 7 other CFAs were present in trace amounts (<1 % / CFA) in this strain

Supplementary Table S2. Characteristics of *Prevotella jejuni* strains CD3:27 CCUG 60308, CD3:28 CCUG 60371^T, CD3:33 CCUG 60311, CD3:32 CCUG 60372, CD3:34 CCUG 60312, *Prevotella histicola* CCUC 55407^T, *Prevotella melaninogenica* CCUG 4944B^T and *Prevotella stercorea* CCUG 55595^T

Characteristic	**CD 3:27**	**CD3:28^T**	**CD 3:33**	**CD3:32**	***P. histicola*^{T}**	**CD3:34**	***P. melaninogenica*^{T}**	***P. stercorea*^{T}**
Pigment*	+	++	++	+++	+	+	+	-
Hemolysis*	+++	+	+	+++	++	+	+	-
Va, Ka, Col**	RSS	RSS	RSS	RSS	RSS	RSS	RRS	SRR
Fluorescence, brick-red in UV light	+	+	+	+	+	+	+	-
Mol% G + C	41.8	41.7	41.7	41.1	41.2	40.7	41.0	48.2
Hydrolysis of:								
Esculin	-	-	-	-	-	-	-	-
Gelatin	+	+	+	+	+	+	+	+[§]
Enzyme activities:								
α-Galactosidase	-	-	+	+	+	+	+	+
β-Galactosidase	+	+	+	+	+	+	+	+
β-Galactosidase 6 phosphate	+	+	+	+	+	+	+	+
α-Glucosidase	+	+	+	+	+	+	+	+
β-Glucosidase	-	-	-	-	-	-	-	-
α-Arabinosidase	-	-	-	-	-	-	-	-
β-Glucuronidase	-	-	-	-	-	-	-	-
N-acetyl-β-glucosaminidase	+	+	+	+	+	+	+	+
α-Fucosidase	+	+	+	+	+	+	+	+
α-Mannosidase	-	-	-	-	-	-	-	w[§§]
Sialidase	+	+	+	-	-	+	+	+
Naphtol-AS-BI-phosphate	+	+	+	+	+	+	+	+
Acid phosphatase	+	+	+	+	+	+	+	+
Alkaline phosphatase	+	+	+	+	+	+	+	+
Arginin arylamidase	+	+	+	+	+	+	+	-
Arginin dihydrolase	-	-	-	-	-	-	-	-
Proline arylamidase	-	-	-	-	-	-	-	-
Leucyl glycine arylamidase	+	+	+	+	+	+	+	+
Phenylalanine arylamidase	-	-	-	-	-	-	-	-
Leucine arylamidase	-	+	+	-	-	+	-	-
Pyroglutamic acid arylamidase	-	-	-	-	-	-	-	-
Tyrosine arylamidase	-	-	-	-	-	-	-	-
Alanine arylamidase	+	+	+	+	+	+	+	+
Glycine arylamidase	-	-	-	-	-	-	-	-
Histidine arylamidase	w	w	w	-	-	w	-	-
Glutamyl glutamic acid arylamidase	-	-	-	+	+	+	+	+

Supplementary Table S2 continued

Characteristic	CD 3:27	CD3:28^{T}	CD 3:33	CD3:32	*P. histicola*^{T}	CD3:34	*P. melaninogenica*^{T}	*P. stercorea*^{T}
Serine arylamidase	-	-	-	-	-	-	-	-
Valine arylamidase	-	-	-	-	-	-	-	-
Cystine arylamidaes	-	-	-	-	-	-	-	-
Glutamic acid decarboxylase	-	-	-	-	-	-	-	-
Urease	-	-	-	-	-	-	-	-
Esterase	-	-	-	-	-	-	-	-
Esterase lipase	-	-	-	-	-	-	-	-
Lipase	-	-	-	-	-	-	-	-
Trypsin	-	-	-	-	-	-	-	-
α-Chymotrypsin	-	-	-	-	-	-	-	-
β-Lactamase	-	-	-	+	+	+	-	-
Production of:								
Indole	-	-	-	-	-	-	-	-
Nitrate	-	-	-	-	-	-	-	-
NH_3	+	+	+	+	+	+	+	+
Acid formation from:								
Arabinose	-	-	-	-	-	-	-	-
Cellobiose	-	-	-	-	-	-	-	-
Glucose	+	+	+	+	+	+	+	+
Lactose	+	+	+	+	+	+	+	+
Maltose	+	+	+	+	+	+	+	+
Mannitol	-	-	-	-	-	-	-	-
Mannose	+	+	+	+	+	+	+	+
Melezitose	-	-	-	-	-	-	-	-
Raffinose	+	+	+	+	+	+	+	+
Rhamnose	-	-	-	-	-	-	-	-
Salicin	-	-	-	-	-	-	-	-
Sorbitol	-	-	-	-	-	-	-	-
Sucrose	+	+	+	+	+	+	+	+
Trehalose	-	-	-	-	-	-	-	-
Xylose	-	-	-	-	-	-	-	-
VFA / non-VFA from glucose[†]	A, iv / S	A / S	A, iv / S	A / S	A, iv / l, mm, S	A, iv / S	A, ib, iv / l, S	A, iv / S

***** Pigmentation and hemolysis: -, not found; +, weak reaction; ++, moderate reaction; +++, strong reaction.

****** Susceptibility (S) or resistance (R) to vancomycin (Va), kanamycin (Ka) and colistin (Co).

[§] In this study.

[§§] Weak reaction.

[†] VFA (volatile fatty acid): A, acetic acid; ib, isobutyric acid; iv, isovaleric acid. Non-VFA: l, lactic acid; mm, methyl malonic acid; S, succinic acid.

Supplementary Table S3. Binding of bacteria to intestinal epithelial cell lines. Percent of cells with bound *Prevotella* bacteria of the strains CD3:27, CD3:28^{T}, CD3:33, CD3:32, CD3:34 as determined by flow cytometry

***Prevotella* strain**	**Epithelial cell line**							
	T84		**LS174T**		**HT29**		**INT407**	
	37 °C	**4 °C**	**37 °C**	**4 °C**	**37 °C**	**4 °C**	**37 °C**	**4 °C**
CD3:27	66.5*	22.6	0	0	23.0	8.6	48.9	11.0
CD3:28	94.6	62.9	0.5	0	18.3	6.5	83.9	37.8
CD3:33	65.9	28.6	19.0	1.2	67.5	45.8	71.8	36.2
CD3:32	38.5	13.4	42.3	41.4	15.7	3.1	8.2	0
CD3:34	68.0	48.7	32.6	14.3	45.5	32.2	41.4	26.7

* Mean of three independent experiments with each combination performed in triplicate at the two incubation conditions. The bacterium to epithelial cell ratio was 1200:1.

Supplementary Figure S1. Colony morphology of jejunal isolates of *Prevotella* strains CD3:27 (a and b), CD3:28 (c) and CD3:33 (d), *P. jejuni*; CD3:32 (e), *P. histicola;* CD3:34 (f), *P. melaninogenica*. Cultured for three days at 37 °C on blood agar in 10 % CO_2, 5 % H_2, 85 % N_2.