

Supporting Information

L-Galactose Metabolism in *Bacteroides vulgatus* from the Human Gut Microbiota

Merlin Eric Hobbs, Howard J. Williams, Brandan Hillerich, Steven C. Almo, and Frank M. Raushel

Table S1: Predicted L-galactono-1,5-lactonase genes inferred from homology

Organism	Accession	GI	%ID to Bvu0220
Bacteroides sp. CAG:754	CDA87444.1	524325565	78
Bacteroides reticulotermitis JCM 10512	GAE84054.1	576503104	80
Bacteroides thetaiotaomicron VPI-5482	NP_812526.1	29349023	79
Bacteroides eggerthii	WP_004288414.1	490415911	79
Bacteroides ovatus	WP_004299638.1	490427480	79
Bacteroides ovatus	WP_004305137.1	490433298	79
Bacteroides ovatus	WP_004324515.1	490453678	79
Bacteroides plebeius	WP_007560655.1	494834527	76
Bacteroides plebeius	WP_007560931.1	494834831	75
Paraprevotella clara	WP_008622791.1	495898212	75
Paraprevotella xylaniphila	WP_008629185.1	495904606	74
Bacteroides sp. D2	WP_008998003.1	496285965	79
Bacteroides fluxus	WP_009123576.1	496414729	74
Bacteroides oleiciplenus	WP_009130352.1	496421505	73
Parabacteroides goldsteinii	WP_009860772.1	497546574	78
Bacteroides thetaiotaomicron	WP_016269731.1	511015346	79
Bacteroides massiliensis	WP_016277046.1	511022736	94
Bacteroides gallinarum	WP_018665958.1	517495381	80
Prevotella paludivivens	WP_018463989.1	517275171	69
Proteiniphilum acetatigenes	WP_019537825.1	518367618	71
Bacteroides sp. CAG:598	WP_021847692.1	546360724	75
Prevotella sp. CAG:1058	WP_021852464.1	546372248	70
Prevotella sp. CAG:255	WP_021853653.1	546381504	72
Paraprevotella clara CAG:116	WP_021980086.1	547244297	75
Bacteroides sp. CAG:661	WP_022020392.1	547287359	77
Bacteroides sp. CAG:702	WP_022040265.1	547308274	76
Prevotella sp. CAG:1320	WP_022149068.1	547735181	80
Bacteroides clarus CAG:160	WP_022217888.1	547808609	80
Prevotella sp. CAG:732	WP_022328800.1	547926725	59

Bacteroides sp. CAG:875	WP_022353146.1	547952395	76
Bacteroides sp. CAG:462	WP_022383979.1	548143812	81
Bacteroides intestinalis CAG:315	WP_022393303.1	548171622	79
Parabacteroides sp. CAG:409	WP_022454666.1	548236281	74
Prevotella ruminicola 23	YP_003576077.1	294675461	64
Bacteroides xylanisolvens XB1A	YP_007793517.1	479164783	79

Table S2: Predicted L-galactose dehydrogenase genes inferred from homology

Organism	Accession	GI	%ID to Bvu0219
Bacteroides sp. CAG:754	CDA87442.1	524325563	80
Bacteroides reticulotermitis JCM 10512	GAE84053.1	576503103	78
Bacteroides thetaiotaomicron VPI-5482	NP_812525.1	29349022	80
Bacteroides ovatus	WP_004299636.1	490427478	81
Bacteroides ovatus	WP_004305138.1	490433299	81
Bacteroides ovatus	WP_004324513.1	490453676	82
Bacteroides plebeius	WP_007560657.1	494834529	83
Bacteroides plebeius	WP_007560932.1	494834832	76
Paraprevotella clara	WP_008622792.1	495898213	75
Paraprevotella xylaniphila	WP_008629182.1	495904603	74
Bacteroides sp. D2	WP_008998004.1	496285966	81
Bacteroides fluxus	WP_009123575.1	496414728	79
Bacteroides fluxus	WP_009130350.1	496421503	69
Bacteroides oleiciplenus	WP_009860773.1	497546575	81
Parabacteroides goldsteinii	WP_016269730.1	511015345	80
Bacteroides thetaiotaomicron	WP_016277047.1	511022737	96
Bacteroides massiliensis	WP_018665957.1	517495380	80
Bacteroides gallinarum	WP_018463990.1	517275172	73
Prevotella paludivivens	WP_019537823.1	518367616	67
Proteiniphilum acetatigenes	WP_021847693.1	546360725	78
Bacteroides sp. CAG:598	WP_021852465.1	546372252	82
Prevotella sp. CAG:1058	WP_021853654.1	546381508	77
Prevotella sp. CAG:255	WP_021980087.1	547244298	76
Paraprevotella clara CAG:116	WP_022020391.1	547287358	80
Bacteroides sp. CAG:661	WP_022040264.1	547308273	79
Bacteroides sp. CAG:702	WP_022149069.1	547735182	79
Prevotella sp. CAG:1320	WP_022217889.1	547808610	79
Bacteroides clarus CAG:160	WP_022328799.1	547926724	72
Prevotella sp. CAG:732	WP_022353145.1	547952394	82

Bacteroides sp. CAG:875	WP_022383980.1	548143816	79
Bacteroides sp. CAG:462	WP_022393304.1	548171623	80
Bacteroides intestinalis CAG:315	WP_022454665.1	548236280	82
Parabacteroides sp. CAG:409	YP_003576078.1	294675462	72
Bacteroides xylanisolvens XB1A	YP_007793516.1	479164782	81

Table S3: Predicted L-galactonate dehydrogenase genes inferred from homology

Organism	Accession	GI	%ID to Bvu0222
Bacteroides sp. CAG:754	CDA87447.1	524325567	80
Bacteroides reticulotermitis JCM 10512	GAE84056.1	576503106	80
Bacteroides thetaiotaomicron VPI-5482	NP_812528.1	29349025	80
Bacteroides eggerthii	WP_004288412.1	490415909	81
Bacteroides ovatus	WP_004299646.1	490427488	81
Bacteroides ovatus	WP_004305135.1	490433296	81
Bacteroides ovatus	WP_004324520.1	490453683	81
Bacteroides plebeius	WP_007560651.1	494834523	78
Bacteroides plebeius	WP_007560927.1	494834827	73
Paraprevotella clara	WP_008622790.1	495898211	70
Paraprevotella xylaniphila	WP_008629194.1	495904615	72
Bacteroides sp. D2	WP_008998001.1	496285963	80
Bacteroides fluxus	WP_009123577.1	496414730	77
Bacteroides oleiciplenus	WP_009130351.1	496421504	66
Parabacteroides goldsteinii	WP_009860770.1	497546572	80
Bacteroides thetaiotaomicron	WP_016269733.1	511015348	81
Bacteroides massiliensis	WP_016277045.1	511022735	94
Bacteroides gallinarum	WP_018665960.1	517495383	80
Prevotella paludivivens	WP_018463987.1	517275169	75
Proteiniphilum acetatigenes	WP_019537824.1	518367617	63
Bacteroides sp. CAG:598	WP_021847690.1	546360722	79
Prevotella sp. CAG:1058	WP_021852462.1	546372241	74
Prevotella sp. CAG:255	WP_021853652.1	546381500	74
Paraprevotella clara CAG:116	WP_021980085.1	547244296	71
Bacteroides sp. CAG:661	WP_022020393.1	547287360	76
Bacteroides sp. CAG:702	WP_022040266.1	547308275	79
Prevotella sp. CAG:1320	WP_022149066.1	547735179	77
Bacteroides clarus CAG:160	WP_022217886.1	547808607	80
Prevotella sp. CAG:732	WP_022328802.1	547926727	68

Bacteroides sp. CAG:875	WP_022353148.1	547952397	78
Bacteroides sp. CAG:462	WP_022383977.1	548143804	80
Bacteroides intestinalis CAG:315	WP_022393301.1	548171620	79
Parabacteroides sp. CAG:409	WP_022454668.1	548236283	74
Prevotella ruminicola 23	YP_003576076.1	294675460	74
Bacteroides xylanisolvens XB1A	YP_007793520.1	479164786	81
