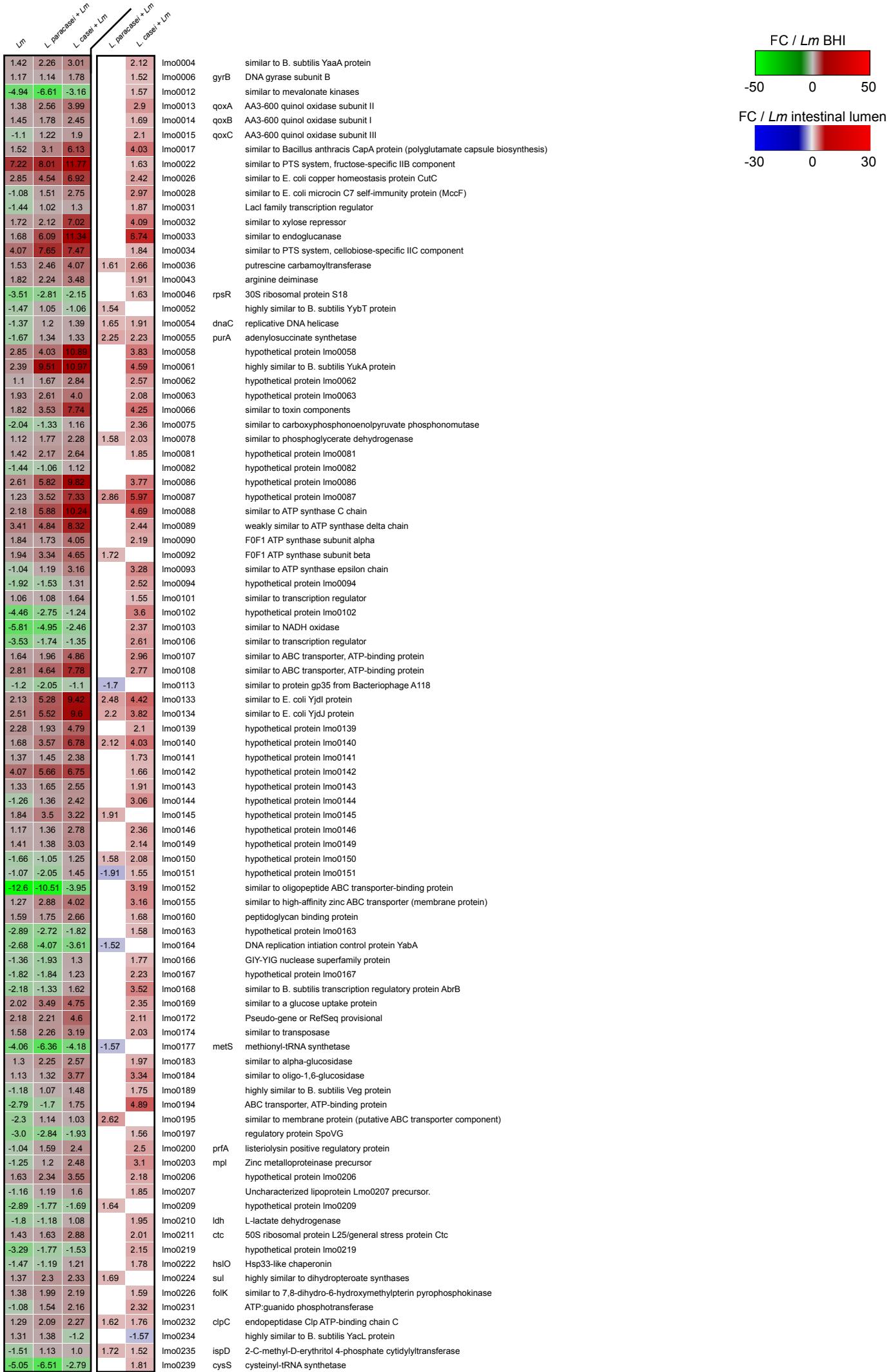


Figure S7 - Effect of treatment by *Lactobacillus* on *Lm* gene expression



	<i>L. paracasei</i> + Lm	<i>L. casei</i> + Lm	<i>L. paracasei</i> + Ln	<i>L. casei</i> + Ln	
-5.28	-5.87	-2.9			1.82
-2.1	1.25	2.36	2.63	4.96	Imo0241
-1.08	1.29	2.37			hypothetical protein Imo0247
-1.2	-1.86	-1.13	-1.55		hypothetical protein Imo0255
6.18	9.3	12.88			hypothetical protein Imo0257
2.22	3.57	8.55	1.61	3.86	ImlH
7.58	16.38	21.12			internalin H
-1.02	1.21	3.13			internalin E
2.79	5.44	4.11			succinyl-diaminopimelate desuccinylase
-2.54	-2.35	-1.79			similar to other proteins
2.31	7.43	5.88			hypothetical protein Imo0270
-1.06	1.48	2.07			hypothetical protein Imo0273
-1.77	-1.23	1.5			hypothetical protein Imo0274
-3.86	-2.04	-1.05			hypothetical protein Imo0275
-2.27	-2.05	1.13			similar to oxidoreductase
-1.88	-2.79	-2.98			hypothetical protein Imo0281
-2.68	-3.67	-1.26	-1.48		transaminase
2.94	3.45	4.44			similar to two-component response regulator
3.09	4.5	4.5	1.45	1.45	similar to <i>B. subtilis</i> YycH protein
-1.71	-2.74	-1.18	-1.6		conserved hypothetical protein similar to <i>B. subtilis</i> YycJ protein
-1.25	1.26	1.6			similar to heat-shock protein htrA serine protease
1.71	3.3	4.74	1.93	2.77	rRNA large subunit methyltransferase
2.17	2.6	6.87			similar to FMN-containing NADPH-linked nitro/flavin reductase
1.42	1.24	4.49			hypothetical protein Imo0296
1.7	1.61	5.63			similar to transcriptional antiterminator (BglG family)
1.13	1.39	2.14			similar to PTS beta-glucoside-specific enzyme IIC component
-3.96	-2.62	-1.95			similar to PTS beta-glucoside-specific enzyme IIA component
1.17	1.72	3.01			similar to low specificity L-allo-threonine aldolase
1.37	1.39	2.32			hypothetical protein Imo0306
1.12	1.59	2.57			hypothetical protein Imo0308
1.18	1.37	2.71			Pseudo-gene or RefSeq provisional
1.23	3.16	3.93			hypothetical protein Imo0310
1.66	2.92	4.13			hypothetical protein Imo0311
1.07	1.88	2.8			hypothetical protein Imo0313
2.9	3.48	5.77			hypothetical protein Imo0315
-1.12	1.58	2.09	1.76	2.33	similar to thiamin biosynthesis protein
-2.11	-1.09	1.13	1.94	2.38	hydroxyethylthiazole kinase
1.56	1.55	3.48			thiamine-phosphate pyrophosphorylase
1.69	1.99	4.72			similar to surface protein (peptidoglycan bound, LPXTG motif)
-1.63	-1.64	1.36			hypothetical protein Imo0321
1.72	3.34	7.77			hypothetical protein Imo0322
1.04	1.6	2.47			hypothetical protein Imo0326
1.74	3.33	4.6	1.92	2.65	similar to transcriptional regulators
2.01	3.96	6.48	1.97	3.22	similar to cell surface proteins (LPXTG motif)
2.52	4.96	7.78	1.97	3.09	hypothetical protein Imo0332
2.36	4.09	8.76			hypothetical protein Imo0333
2.03	4.39	10.24	2.16	5.05	similar to internalin proteins, putative peptidoglycan bound protein (LPXTG motif)
5.97	10.66	15.28			hypothetical protein Imo0335
3.29	8.56	11.92			hypothetical protein Imo0339
2.57	5.61	10.38	2.18	4.03	weakly similar to inorganic pyrophosphatase
-1.63	1.16	1.27			hypothetical protein Imo0340
-3.53	-3.09	-1.28			similar to D-fructose-1,6-biphosphate aldolase
-1.08	1.0	2.34			similar to dihydroxyacetone kinase
-1.01	1.69	2.46	1.71	2.5	similar to conserved hypothetical protein
1.06	1.65	2.18			conserved hypothetical protein similar to <i>B. subtilis</i> YwbN protein
1.23	2.19	2.94			hypothetical protein Imo0378
1.57	2.33	2.83			hypothetical protein Imo0379
3.22	4.3	6.93			hypothetical protein Imo0380
8.3	11.5	15.38			hypothetical protein Imo0381
-1.71	-1.03	-1.07			highly similar to <i>B. subtilis</i> methylmalonate-semialdehyde dehydrogenase lolA
1.09	1.41	2.28			similar to <i>B. subtilis</i> lolD protein, to acetylactate synthase
1.15	1.5	1.94			ItrA
1.29	1.54	2.1			low temperature requirement protein A
-1.53	1.67	1.86	2.55	2.84	hypothetical protein Imo0391
2.24	3.76	5.0			hypothetical protein Imo0391
2.25	3.56	5.02	2.23	2.23	hypothetical protein Imo0392
2.3	4.63	4.19	2.02	1.82	highly similar to <i>B. subtilis</i> YqfA protein
1.23	1.85	2.42			hypothetical protein Imo0393
1.45	4.05	6.7	1.97	4.62	similar to phosphotransferase system enzyme IIA
1.65	-1.18	1.45	-1.95		alpha-mannosidase
1.06	1.58	1.56	1.49		similar to phosphate transport protein
-1.44	-1.49	1.5			similar to <i>B. subtilis</i> YyaH protein
1.17	-1.39	-1.23	-1.62	-1.44	hypothetical protein Imo0406
-1.51	-1.11	1.35			hypothetical protein Imo0408
-2.22	2.05	1.39	4.54	3.07	similar to internalin, peptidoglycan bound protein (LPxTG motif)
-1.28	2.18	2.75	2.79	3.51	hypothetical protein Imo0409
4.28	6.59	9.81			hypothetical protein Imo0411
1.05	1.61	1.97	1.54	1.88	phosphoenolpyruvate synthase
31.51	53.6	53.42	1.7		hypothetical protein Imo0412
19.35	27.39	46.1			hypothetical protein Imo0414
2.57	7.91	8.68	3.08	3.46	hypothetical protein Imo0415
1.29	1.83	3.39			similar to endo-1,4-beta-xylanase
1.97	2.48	3.58			hypothetical protein Imo0416
1.01	1.07	3.4			similar to putative transcription regulator
1.37	3.12	3.96			hypothetical protein Imo0420
1.74	6.76	6.56			similar to Staphylococcus xylosus glucose uptake protein
1.43	3.11	5.28			hypothetical protein Imo0424
1.9	3.26	3.5			similar to PTS fructose-specific enzyme IIC component
-2.57	-2.93	-1.21			hypothetical protein Imo0428
-1.44	1.41	3.45			similar to acetyltransferase
-1.09	1.41	3.13			inlA
1.16	1.7	2.3	1.47		internalin A
					inlB
2.57	7.91	8.68			peptidoglycan binding protein
1.29	1.83	3.39			hypothetical protein Imo0437
1.97	2.48	3.58			weakly similar to a module of peptide synthetase
1.01	1.07	3.4			hypothetical protein Imo0444
1.37	3.12	3.96			hypothetical protein Imo0444
1.74	6.76	6.56			similar to penicillin acylase and to conjugated bile acid hydrolase
1.43	3.11	5.28			similar to glutamate decarboxylase
1.9	3.26	3.5			similar to amino acid antiporter
-2.57	-2.93	-1.21			hypothetical protein Imo0450
-1.44	1.41	3.45			hypothetical protein Imo0454
-1.09	1.41	3.13			conserved hypothetical protein similar to <i>B. subtilis</i> YeaC
1.16	1.7	2.3	1.47		similar to permeases
					similar to hydantoinase
					hypothetical protein Imo0462

Ln L. paracasei + Ln L. casei + Ln L. paracasei + Ln L. casei + Ln

	Ln	L. paracasei + Ln	L. casei + Ln	L. paracasei + Ln	L. casei + Ln	
1.02	1.53	2.8		2.73		lmo0463
1.83	4.19	6.14		2.29	3.36	hypothetical protein lmo0466
-2.2	-1.59	1.28		2.82		weakly similar to site-specific DNA-methyltransferase
11.93	20.74	26.74		1.74	2.24	hypothetical protein lmo0471
2.3	2.83	4.8		2.09		Pseudo-gene or RefSeq provisional
1.27	-1.32	1.12		-1.68		putative secreted protein
1.05	-2.38	-3.44		-2.5	-3.6	putative secreted protein
-1.89	-1.87	-1.15			1.64	ribosomal RNA large subunit methyltransferase N
-17.87	-5.99	-3.67			4.87	hypothetical protein lmo0485
-2.17	-1.33	1.34		1.63	2.92	aroD
-1.72	-1.2	1.8			3.1	3-dehydroquinate dehydratase
2.57	5.17	10.5			4.08	similar to transmembrane protein
3.73	2.93	8.7			2.33	similar to ribose 5-phosphate isomerase
4.14	5.85	11.32			2.73	similar to ribulose-5-phosphate 3 epimerase
9.72	10.38	20.97			2.16	similar to PTS fructose-specific enzyme IIA component
6.02	6.16	10.47			1.74	similar to PTS system, Galactitol-specific IIC component
-2.96	-1.26	1.09			2.35	weakly similar to transcription regulator
1.11	1.63	3.38			3.04	similar to internalin protein, putative peptidoglycan bound protein (LPXTG motif)
4.38	7.98	24.41			1.82	hypothetical protein lmo0515
-3.76	-2.07	-1.63			1.81	similar to B. subtilis YybC protein
1.41	2.32	2.57			1.82	similar to putative sulfate transporter
1.8	3.84	7.6			4.23	similar to transcription regulator (TipA from Streptomyces coelicolor)
-3.44	-1.82	-1.73			1.99	transmembrane protein
-1.66	-1.55	1.61			2.67	hypothetical protein lmo0532
-2.79	-2.39	-1.2			2.31	hypothetical protein lmo0534
-1.6	1.05	1.48			1.69	similar to transcription regulator (Laci family)
-1.57	-1.94	1.41			2.21	similar to N-acyl-L-amino acid amidohydrolase
2.26	3.92	4.45			1.97	tagatose 1,6-diphosphate aldolase
-2.78	-1.55	1.01			2.82	similar to ABC transporter (binding protein)
1.92	4.55	4.5			2.36	similar to PTS system, glucitol/sorbitol-specific enzyme IIA component
1.15	1.76	5.13				lmo0551
1.77	4.09	5.38			4.45	hypothetical protein lmo0552
-1.53	-1.15	1.33			2.31	hypothetical protein lmo0553
1.28	2.18	1.68			3.05	similar to di-tripeptide transporter
1.28	1.61	2.43			2.03	similar to phosphoglycerate mutase
1.42	1.55	2.74			1.93	similar to phosphoglycerate mutase
1.39	3.42	6.07			2.45	imidazole glycerol phosphate synthase subunit HisF
1.28	3.39	3.6			2.65	1-(5-phosphoribosyl)-5-
1.75	2.73	5.04			2.88	imidazoleglycerol-phosphate dehydratase
1.04	1.74	4.08			3.91	lmo0567
-1.59	-1.22	2.9			4.62	lmo0568
1.37	1.94	2.21			1.61	ATP phosphoribosyltransferase catalytic subunit
-2.21	-2.16	-1.1			1.61	lmo0570
1.18	3.76	3.24			2.0	histidinol-phosphatase
1.44	2.01	2.65			3.19	hypothetical protein lmo0572
1.25	2.59	4.42			2.74	similar to beta-glucosidase
1.19	2.16	2.74			1.85	lmo0578
1.64	2.86	3.71			2.06	hypothetical protein lmo0579
1.86	3.08	6.85			3.52	weakly similar to carboxylesterase
1.39	5.39	5.29			2.3	lmo0584
1.18	1.25	1.67			1.75	hypothetical protein lmo0584
-1.37	-1.04	1.86			3.67	putative secreted protein
-4.37	-2.03	-2.67			3.87	putative secreted protein
1.28	1.76	2.92			3.79	similar to transport proteins (formate%3F)
-4.47	-3.33	-1.54			1.42	lmo0587
1.75	1.91	2.64			2.54	similar to transport proteins (formate%3F)
1.36	1.79	2.24			2.54	lmo0593
1.16	1.59	2.77			2.16	metX
-2.92	-2.15	-1.82			2.28	homoserine O-acetyltransferase
-2.15	-3.05	-1.12			2.9	similar to transcription regulator CRP/FNR family
1.04	1.22	2.72			1.51	lmo0594
-1.93	-1.62	1.03			1.65	similar to transcription regulator MarR family
1.69	1.8	4.47			2.38	lmo0605
1.03	1.18	1.74			1.92	similar to ABC transporter, ATP-binding protein
-2.49	-1.36	1.1			2.62	lmo0606
2.75	3.17	8.74			2.62	similar to ABC transporter, ATP-binding protein
1.97	3.76	3.42			1.74	lmo0607
2.23	3.28	3.68			1.47	lmo0608
1.52	2.07	2.71				lmo0609
2.44	6.07	11.31			1.83	similar to E. coli phage shock protein E
-2.73	-1.06	-1.35			2.74	similar to oxidoreductase
1.04	1.22	2.72			3.17	lmo0613
-1.93	-1.62	1.03			1.74	hypothetical protein lmo0617
1.69	1.8	4.47			1.98	hypothetical protein lmo0622
1.03	1.18	1.74			2.64	hypothetical protein lmo0623
-2.49	-1.36	1.1			1.69	hypothetical protein lmo0624
2.75	3.17	8.74			1.69	hypothetical protein lmo0626
1.97	3.76	3.42			1.74	peptidoglycan bound protein
2.23	3.28	3.68			1.47	hypothetical protein lmo0628
1.52	2.07	2.71				lmo0629
2.44	6.07	11.31			1.83	similar to transcription antiterminator BglG family
-2.73	-1.06	-1.35			2.74	similar to an E. coli putative tagatose 6-phosphate kinase
1.71	1.46	2.94			1.74	weakly similar to methyltransferase
1.31	1.34	1.96			1.74	lmo0637
-1.78	-1.16	1.14			1.74	hypothetical protein lmo0638
-4.12	-4.62	-2.42			1.74	hypothetical protein lmo0638
1.08	1.99	2.41			1.74	similar to a transcription regulator (surface protein PAg negative regulator par)
4.27	7.89	9.52			1.74	hypothetical protein lmo0642
4.96	9.68	10.88			1.5	hypothetical protein lmo0642
-2.11	-1.03	1.78			2.04	hypothetical protein lmo0646
1.35	1.74	2.2			1.7	hypothetical protein lmo0646
-2.08	-1.81	-1.44			1.71	hypothetical protein lmo0647
-1.08	1.07	2.07			1.71	hypothetical protein lmo0648
1.51	2.85	4.61			1.74	hypothetical protein lmo0649
1.11	2.15	3.24			2.04	hypothetical protein lmo0649
-1.98	-1.67	-1.16			1.74	similar to a transcription regulator (surface protein PAg negative regulator par)
-1.26	-1.86	-1.71			1.74	hypothetical protein lmo0655
-1.59	-1.47	1.13			1.74	similar to phosphoprotein phosphatases
2.42	3.45	4.31			1.74	hypothetical protein lmo0656
-2.45	1.18	1.02			2.22	hypothetical protein lmo0657
2.07	6.79	12.59			2.06	hypothetical protein lmo0652
-1.43	2.29	3.71			3.77	hypothetical protein lmo0661
3.1	6.55	8.28			6.09	hypothetical protein lmo0662
					5.32	thiD
					2.11	highly similar to phosphomethylpyrimidine kinase thiD
					2.67	hypothetical protein lmo0663
					1.47	hypothetical protein lmo0664
					1.81	similar to acetyl transferase
					1.78	hypothetical protein lmo0670
					2.49	hypothetical protein lmo0672
					2.49	hypothetical protein lmo0672
					6.09	fliP
					5.32	fliQ
					2.11	fliR
					2.67	flagellar biosynthesis protein FliR

-1.01	1.38	2.63			
1.81	4.17	7.92	2.31	2.65	lmo0679 flhB
2.19	3.72	6.39		2.92	similar to chemotactic methyltransferase CheR
1.93	3.28	8.25	1.7	4.28	lmo0685 flagellar motor protein MotA
1.22	2.66	7.39		6.05	hypothetical protein lmo0688
1.95	3.5	5.85		3.0	flagellar motor switch protein
1.55	4.66	8.36	3.01	5.39	lmo0693 flagellar basal body rod modification protein
2.61	5.68	6.4		2.45	lmo0696 flgD flagellar hook protein FlgE
1.33	1.73	3.1		2.34	lmo0698 flagellar motor switch protein
1.69	3.39	5.52		3.27	hypothetical protein lmo0704
1.26	1.53	1.8		1.43	lmo0705 flgK flagellar hook-associated protein FlgK
-1.35	1.75	2.42	2.35	3.26	lmo0706 flgL flagellar hook-associated protein FlgL
2.07	1.35	4.17		2.01	lmo0707 flID flagellar capping protein
1.18	1.88	2.16		1.82	lmo0711 flgC flagellar basal body rod protein FlgC
2.55	6.03	12.64		4.95	lmo0714 flfG flagellar motor switch protein G
1.84	2.65	6.83		3.71	lmo0716 flfI flagellum-specific ATP synthase
1.37	1.52	3.32		2.43	lmo0717 similar to transglycosylase
-1.32	1.56	2.4	2.06	3.16	lmo0718 hypothetical protein lmo0718
-1.61	1.19	2.03	1.92	3.26	lmo0719 hypothetical protein lmo0719
-1.42	-4.05	-2.1	-2.85		lmo0720 hypothetical protein lmo0720
1.29	2.16	2.55		1.97	lmo0727 glucosamine-fructose-6-phosphate aminotransferase
14.55	-11.02	-6.3		2.31	similar to riboflavin kinase / FAD synthase
1.18	2.13	2.02		1.8	lmo0731 hypothetical protein lmo0731
2.04	5.08	8.9	2.5	4.37	lmo0733 similar to transcription regulator
4.18	6.79	11.62		2.78	lmo0736 ribose-5-phosphate isomerase B
4.77	12.52	19.88	2.62	4.17	lmo0737 hypothetical protein lmo0737
5.13	13.04	16.69	2.54	3.25	lmo0738 similar to phosphotransferase system (PTS) beta-glucoside-specific enzyme IIABC component
1.9	2.07	6.49		3.42	lmo0739 similar to 6-phospho-beta-glucosidase
1.84	2.93	4.85		2.64	lmo0741 similar to transcriptional regulator (GntR family)
1.51	3.06	4.3		2.84	lmo0742 similar to ABC transporter, ATP-binding protein
1.72	2.7	6.78		3.94	lmo0743 hypothetical protein lmo0743
1.34	2.24	2.41		1.8	lmo0744 similar to ABC transporter, ATP-binding protein
-1.82	-1.07	1.05		1.92	lmo0747 hypothetical protein lmo0747
-1.42	-1.57	1.4		2.0	lmo0748 hypothetical protein lmo0748
-2.27	-1.6	1.07	1.42	2.42	lmo0749 hypothetical protein lmo0749
-2.13	-1.25	1.21	1.7		lmo0751 hypothetical protein lmo0751
-2.8	-1.3	-1.01		2.77	lmo0755 hypothetical protein lmo0755
1.34	2.98	5.21	2.22	3.88	lmo0756 Similar to ABC transporter (ATP-binding protein)
1.12	3.06	3.94	2.73	3.52	lmo0758 hypothetical protein lmo0758
1.12	2.24	2.72	2.0	2.43	lmo0759 hypothetical protein lmo0759
-1.57	-1.49	1.35		2.13	lmo0760 hypothetical protein lmo0760
1.06	1.88	2.02	1.78		lmo0762 similar to ATP/GTP-binding protein
1.35	2.41	3.63	1.79	2.7	lmo0772 similar to transcription regulator
1.43	3.52	4.71	2.47	3.3	lmo0774 hypothetical protein lmo0774
1.91	2.32	5.03		2.64	lmo0775 hypothetical protein lmo0775
-1.14	1.44	2.19		2.49	lmo0776 similar to transcription regulator (repressor)
-1.67	-1.18	-1.51	1.42		lmo0778 hypothetical protein lmo0778
-1.29	-1.18	1.81		2.32	lmo0786 similar to acyl-carrier protein phosphodiesterase and to NAD(P)H dehydrogenase
-1.39	1.63	1.88	2.26	2.6	lmo0790 similar to transcription regulator (EbsC from Enterococcus faecalis)
-5.52	-4.09	-1.37		4.04	lmo0800 similar to B. subtilis YqkB protein
1.33	1.95	4.4		3.31	lmo0801 similar to internalin, putative peptidoglycan bound protein (LPXTG motif)
1.35	1.85	2.78		2.07	lmo0807 similar to spermidine/putrescine ABC transporter, ATP-binding protein
13.45	-28.25	-13.36	-2.1		lmo0811 similar to carbonic anhydrase
-1.51	-1.03	1.05		1.58	lmo0816 similar to B. subtilis regulatory protein PaiA
2.7	3.96	3.69	1.47		lmo0818 similar to cation transporting ATPase
-1.48	-1.3	1.28		1.89	lmo0820 some similarity to acetyltransferases
-1.7	1.35	1.27	2.3	2.16	lmo0821 hypothetical protein lmo0821
-2.31	-5.7	-2.52	-2.47		lmo0823 similar to oxido-reductases
1.91	1.55	3.34		1.75	lmo0825 similar to 3-hydroxy-3-methylglutaryl-coenzyme A reductase
-1.04	-2.15	-1.51	-2.07		lmo0826 similar to transport protein
-1.13	1.34	2.94		3.34	lmo0833 similar to transcriptional regulator
1.46	2.95	4.35		2.97	lmo0835 peptidoglycan binding protein
-6.97	-4.03	-1.47		4.76	lmo0837 Pseudo-gene or RefSeq provisional
-1.01	2.17	3.61	2.19	3.64	lmo0839 similar to Tetracycline resistance protein
1.84	2.79	3.92		2.13	lmo0842 peptidoglycan binding protein
2.3	2.76	5.29		2.3	lmo0849 amidase
4.37	1.83	2.03		-2.15	lmo0850 hypothetical protein lmo0850
-4.71	-2.98	-2.41	1.58		lmo0854 similar to E. coli SugE protein (transmembrane chaperone)
5.75	7.81	15.98		2.78	lmo0860 similar to sugar ABC transporter, permease protein
-4.45	-3.71	-2.94		1.51	lmo0866 similar to ATP-dependent RNA helicase
1.41	1.7	4.77		3.39	lmo0869 hypothetical protein lmo0869
-1.14	1.44	3.28	1.64	3.76	lmo0870 hypothetical protein lmo0870
1.52	-1.11	-1.38	-1.69	-2.1	lmo0871 similar to B. subtilis YtcD protein
1.14	1.8	3.14		2.75	lmo0872 similar to antibiotic resistance protein
1.13	1.89	3.17		2.8	lmo0873 Similar to transcriptional regulator (antiterminator)
2.05	4.72	5.78	2.3		lmo0877 similar to B. subtilis NagB protein (glucosamine-6-phosphate isomerase)
2.82	2.83	5.6		1.98	lmo0878 similar to oxidoreductases
3.97	4.06	9.44		2.38	lmo0879 hypothetical protein lmo0879
-1.45	1.03	1.5		2.17	lmo0880 similar to wall associated protein precursor (LPXTG motif)
2.04	2.5	3.86		1.89	lmo0881 hypothetical protein lmo0881
-2.63	-3.42	-1.46		1.8	lmo0886 dal similar to alanine racemase
-4.32	-5.46	-2.82		1.53	lmo0896 rsbX indirect negative regulation of sigma B dependant gene expression (serine phosphatase)
1.57	2.43	3.32		2.11	lmo0897 similar to transport proteins
1.09	2.36	4.63		4.26	lmo0901 similar to PTS system, cellobiose-specific IIC component
-1.09	1.33	1.88	1.45	2.06	lmo0902 similar to transcription regulator (GntR family)
-16.71	-9.58	-4.41		3.79	lmo0903 hypothetical protein lmo0903
-1.13	1.19	1.58			lmo0906 glutathione reductase
-3.37	-2.49	-1.38		2.44	lmo0908 similar to membrane proteins
-1.22	1.11	1.87		2.28	lmo0910 hypothetical protein lmo0910
2.13	2.69	5.96		2.8	lmo0911 hypothetical protein lmo0911
-1.13	1.61	1.73	1.82		lmo0912 similar to transporters (formate)
2.64	3.63	4.7		1.78	lmo0913 similar to succinate semialdehyde dehydrogenase

	<i>L</i> <i>n</i>	<i>L</i> <i>paracasei</i> × <i>L</i> <i>n</i>	<i>L</i> <i>casei</i> × <i>L</i> <i>n</i>	<i>L</i> <i>paracasei</i> × <i>L</i> <i>n</i>	<i>L</i> <i>casei</i> × <i>L</i> <i>n</i>	
3.66	3.8	7.97		2.18	1.85	similar to beta-glucosidase
1.82	2.07	3.37		2.18	2.1	similar to transcription antiterminator BglG family
2.97	4.93	6.49			1.7	similar to ABC transporter ATP-binding protein (antibiotic resistance)
-1.95	-1.66	1.08			1.57	similar to <i>B. subtilis</i> YcgR protein
-2.67	-2.58	-1.57			1.82	similar to <i>B. subtilis</i> YcgQ protein
-3.52	-2.24	-1.93			2.13	similar to ABC transporter, ATP-binding protein (N-terminal part)
1.11	2.37	3.36			3.03	hypothetical protein Imo0925
-1.33	1.41	3.01			4.01	similar to transcription regulator (TetR/AcrR family)
1.84	2.35	6.71			3.64	3-methyladenine DNA glycosylase
1.23	2.25	2.77			2.26	similar to sortase
1.67	1.92	2.65			1.58	similar to lipoate protein ligase A
3.0	5.49	7.23			1.83	hypothetical protein Imo0937
1.03	1.43	1.84			2.41	non-heme iron-binding ferritin
-1.31	1.2	1.88			1.78	similar to C-terminal part of <i>B. subtilis</i> ComEC protein and to ComEA
1.39	2.23	2.1			2.46	hypothetical protein Imo0946
-3.36	-4.75	-1.28			1.6	hypothetical protein Imo0948
3.92	6.18	6.65			2.63	similar to transcription regulator
2.74	3.17	4.39			1.58	hypothetical protein Imo0953
-3.1	-2.9	-1.3			2.21	similar to N-acetylglucosamine-6P-phosphate deacetylase (EC 3.5.1.25)
1.87	2.32	4.03			1.6	similar to proteases
6.35	5.46	3.51			2.39	similar to <i>B. subtilis</i> YjbH protein
2.24	2.85	3.27			2.16	similar to <i>B. subtilis</i> YjbK protein
2.5	1.65	1.33			-1.88	hypothetical protein Imo0966
-9.85	-6.17	-4.39			1.59	similar to ribosomal large subunit pseudouridine synthetase
-11.71	-11.69	-4.92			2.24	ditD
-1.58	-1.63	-1.12			2.38	DitD protein for D-alanine esterification of lipoteichoic acid and wall teichoic acid
-2.34	-1.48	1.03			1.41	D-alanine-poly(phosphoribitol) ligase subunit 1
-1.88	-1.35	1.42			2.4	ribose-5-phosphate isomerase A
1.4	2.23	3.39			2.67	branched-chain amino acid aminotransferase
-1.31	-1.08	1.67			2.41	similar to ABC transporter transmembrane component
-2.21	-1.16	1.48			2.19	similar to glucanase and peptidase
1.29	1.73	2.66			1.91	similar to glutathione peroxidase
-1.04	1.7	1.93			3.28	weakly similar to two-component response regulator
1.35	1.65	2.99			2.06	similar to antibiotic ABC transporter, ATP-binding protein
1.48	1.57	4.07			1.76	similar to <i>Streptococcus agalactiae</i> CylB protein
-9.06	-5.42	-2.56			2.21	hypothetical protein Imo0990
-1.01	1.63	2.34			2.75	hypothetical protein Imo0991
1.09	3.34	6.2			3.54	similar to Na ⁺ -transporting ATP synthase subunit J
-2.5	-1.54	-1.2			2.36	hypothetical protein Imo0994
-1.97	-1.26	1.45			3.06	cipE
1.27	1.99	2.64			5.67	ATP-dependent protease
-1.94	-1.36	-1.07			2.09	hypothetical protein Imo1004
-10.09	-4.0	-1.92			2.85	similar to 3-hydroxyisobutyrate dehydrogenase (<i>B. subtilis</i> YkwC protein)
-11.43	-7.71	-4.29			2.07	similar to transcription regulator (LysR family).
-11.87	-7.76	-4.08			1.82	similar to tetrahydروipicolinate succinylase
1.01	-1.52	1.09			5.25	Imo1014 gbuA
1.04	1.74	1.75			2.67	highly similar to glycine betaine ABC transporter (ATP-binding protein)
-2.09	-1.84	-1.12			2.91	Imo1015 gbuB
4.43	23.82	6.82			-1.53	highly similar to glycine betaine ABC transporters (glycine betaine-binding protein)
3.84	5.69	8.05			1.68	Imo1016 gbuC
2.87	4.41	6.78			1.68	highly similar to two-component sensor histidine kinase in particular <i>B. subtilis</i> YvqE protein
1.28	1.83	2.15			1.68	hypothetical protein Imo1025
1.28	1.77	2.07			1.68	similar to ABC transporter, ATP-binding protein
1.8	2.41	3.06			1.86	similar to molybdopterin converting factor (subunit 1).
1.77	2.35	4.13			5.38	Imo1048
2.21	2.9	4.1			1.48	similar to molybdenum cofactor biosynthesis protein B
1.59	2.79	4.1			2.37	Imo1049
2.23	2.92	6.32			1.69	similar to molybdenum biosynthesis protein MoeB
1.03	5.07	3.93			1.62	Imo1052 pdhA
-4.38	-2.55	-2.07			1.7	highly similar to pyruvate dehydrogenase (E1 alpha subunit)
-2.84	-3.19	-1.11			2.33	Imo1053 PdhB
1.49	2.59	6.98			1.85	highly similar to pyruvate dehydrogenase (E1 beta subunit)
-1.61	-2.39	-1.86			2.57	Imo1057
1.72	1.0	1.07			2.83	similar to L-lactate dehydrogenase
-1.13	-1.9	-1.13			4.92	Imo1059
1.84	1.68	3.03			3.8	similar to <i>B. subtilis</i> YktA protein
1.43	2.06	1.55			2.11	hypothetical protein Imo1059
1.12	-2.03	-1.5			2.56	similar to transcription response regulator
-1.82	-2.2	-2.84			-1.48	similar to ABC transporters (permease protein)
1.92	2.02	3.86			-1.72	similar to ABC transporter (ATP binding protein)
1.58	3.49	4.91			-1.69	similar to membrane and transport proteins
3.01	9.11	10.62			1.65	similar to <i>B. subtilis</i> YktB protein
2.18	2.02	4.06			1.44	hypothetical protein Imo1068
1.79	2.35	4.97			2.28	similar to autolysin (EC 3.5.1.28) (N-acetylmuramoyl-L-alanine amidase)
2.3	3.96	5.08			-1.69	similar to glucose-1-phosphate thymidyl transferase
2.13	3.49	3.96			1.73	Imo1063
1.7	1.23	4.4			4.67	similar to dTDP-D-glucose 4,6-dehydratase
1.58	2.53	2.19			4.92	Imo1064
1.85	3.58	4.19			3.8	similar to teichoic acid biosynthesis protein B
1.41	1.88	2.75			2.11	Imo1064
1.29	1.72	3.82			2.56	similar to membrane and transport proteins
1.1	1.21	2.55			-1.48	similar to <i>B. subtilis</i> YktB protein
-2.33	-1.37	1.03			-1.72	hypothetical protein Imo1068
-1.73	-1.44	1.31			-1.69	similar to membrane and transport proteins
4.93	24.89	7.57			1.65	similar to ABC transporter (ATP binding protein)
2.25	7.5	3.87			1.65	similar to ABC transporter (ATP binding protein)
1.93	10.31	3.93			1.44	similar to ABC transporter (ATP binding protein)
2.12	3.77	3.13			-2.28	similar to ABC transporter (ATP binding protein)
3.11	6.16	5.4			-1.69	similar to ABC transporter (ATP binding protein)
3.67	8.97	10.98			1.72	similar to ABC transporter (ATP binding protein)
2.2	6.3	4.5			-2.28	similar to ABC transporter (ATP binding protein)
1.54	6.26	6.62			-1.69	similar to ABC transporter (ATP binding protein)
					1.93	NAD synthetase
					2.01	hypothetical protein Imo1094
					2.01	hypothetical protein Imo1094
					2.21	cadA
					3.1	cadmium resistance protein
					3.53	Imo1106
					1.86	highly similar to TN916 ORF18
					2.78	Imo1110
					1.72	hypothetical protein Imo1110
					2.21	highly similar to TN916 ORF20
					1.64	highly similar to TN916 ORF22
					1.86	Imo1119
					2.6	similar to methylases
					1.6	Imo1120
					1.93	hypothetical protein Imo1120
					1.95	Imo1124
					2.97	hypothetical protein Imo1125
					2.31	Imo1128
					2.4	hypothetical protein Imo1129
					2.27	Imo1131
					1.98	similar to ABC transporters, ATP-binding proteins
					1.98	similar to ABC transporters, ATP-binding proteins
					2.45	Imo1142
					2.99	similar to <i>Salmonella enterica</i> PduS protein
					5.35	Imo1144
					2.04	similar to <i>Salmonella enterica</i> PduU protein
					1.98	Imo1145
					1.98	similar to <i>Salmonella enterica</i> PduV protein
					1.98	Imo1146
					2.45	similar to bifunctional cobalamin biosynthesis protein CopB
					2.99	highly similar to cobalamin (5'-phosphatase) synthetase
					2.04	similar to alpha-ribazole-5'-phosphatase
					4.08	similar to <i>Salmonella typhimurium</i> PduA protein

Lm	L. paracasei + Lm	L. casei + Lm	L. paracasei + Lm	L. casei + Lm
1.68	16.19	3.97	9.63	2.36
1.44	19.38	5.3	13.46	3.68
1.13	27.18	6.8	24.09	6.03
2.57	12.69	6.96	4.93	2.71
2.3	9.18	10.71		4.66
1.19	5.43	4.2	4.58	3.55
3.7	8.88	11.47	2.4	3.1
1.4	11.16	10.07	7.96	7.19
1.73	5.68	4.63	3.28	2.67
2.06	11.8	7.0	5.74	3.4
2.75	6.22	7.84		2.85
1.72	4.61	4.24	2.69	2.47
1.61	3.88	4.76		2.96
1.25	9.85	7.23		5.8
-2.13	-1.12	1.12		2.39
6.8	13.09	25.59		3.76
6.6	11.76	17.37		2.63
2.66	12.57	12.11		4.54
9.86	25.73	10.04	2.61	
4.18	9.5	11.77	2.28	2.82
3.37	9.82	9.67	2.92	2.87
5.44	11.86	5.77	2.18	
1.53	2.68	4.82		3.16
20.98	97.22	62.35	4.64	2.97
1.84	4.45	2.92	2.42	
2.52	9.05	5.89	3.59	
2.55	5.68	11.73		4.6
2.22	4.24	4.22	1.91	1.9
2.53	7.92	4.7	3.13	
1.74	8.54	2.94	4.92	1.69
1.66	4.73	5.31	2.84	3.19
2.54	5.68	6.68	2.24	2.63
-1.04	2.09	2.62		2.73
-1.55	1.0	1.65		2.56
-5.8	-4.9	-3.5		1.66
1.37	-1.2	1.27	-1.65	
-4.49	-5.07	-1.59		2.81
-1.29	-1.2	1.57		2.02
-1.27	-1.58	2.15		2.73
-2.78	-2.14	-1.11		2.5
-1.12	1.32	2.04		2.28
-6.66	-3.39	-2.68		2.48
-1.54	-1.31	1.24		1.91
4.12	8.0	6.41	1.94	
1.04	1.53	2.65		2.56
1.05	1.86	2.05		1.94
-1.21	2.2	3.23	2.66	3.91
-1.26	2.65	2.98	3.33	3.74
-5.03	-2.14	-2.44	2.35	
3.61	5.32	7.75		2.15
13.54	-14.01	-5.23		2.59
1.61	3.44	6.62	2.13	4.1
-1.61	-1.18	1.24		1.99
-3.25	-3.86	-1.74		1.87
2.62	3.24	4.17		1.59
1.3	1.66	6.38		4.9
1.69	1.65	4.34		2.56
1.9	2.62	5.62		2.95
1.74	-1.03	1.15	-1.78	
1.12	-1.43	-1.35	-1.6	1.95
1.74	2.09	3.4		2.04
1.05	1.41	2.13		2.13
1.25	1.94	2.66		3.15
1.57	3.45	4.94		1.64
1.57	1.25	-1.04		1.94
7.74	9.4	15.03		2.13
-1.0	-1.17	2.12		1.79
-4.94	-2.35	-1.85		2.23
1.43	2.57	3.54	-1.55	
1.76	3.06	3.91	1.74	2.23
-1.67	-1.33	-2.59	1.42	1.42
-2.33	-4.65	-2.63		1.94
-2.12	-1.5	-1.3		1.94
2.8	4.09	5.44		2.37
1.14	1.55	2.7		2.43
1.22	1.56	2.97		2.07
14.2	7.85	15.24	-1.81	2.54
-1.79	-2.23	-2.9		1.63
-1.26	-1.24	1.17		1.5
-1.7	-1.19	-1.0		1.62
-1.74	-1.59	-1.21		1.48
1.14	1.11	2.18		1.69
1.32	2.74	3.36		1.44
1.32	2.48	2.15		1.91
1.36	1.6	2.03		1.61
3.63	6.34	5.88		1.43
-1.21	1.06	1.17		1.76
-1.32	1.08	1.21		1.8
1.56	2.22	2.74		2.8
1.46	3.01	2.62		-1.46
-3.39	-2.4	-1.21		
1.53	1.04	1.11		

similar to *Salmonella typhimurium* PduB protein
highly similar to propanediol dehydratase, alpha subunit
similar to diol dehydrase (diol dehydratase) gamma subunit
similar to diol dehydrase (diol dehydratase) gamma subunit (pddC)
similar to diol dehydratase-reactivating factor large subunit
similar to diol dehydratase-reactivating factor small chain
similar to *Salmonella enterica* PduK protein
similar to carboxysome structural protein
similar to *Salmonella enterica* PduL protein
similar to ethanolamine utilization protein EutJ
hypothetical protein lmo1162
similar to carbon dioxide concentrating mechanism protein
similar to ethanolamine utilization protein EutE
similar to putative carboxysome structural protein
similar to putative carboxysome structural protein
hypothetical protein lmo1163
similar to ethanolamine utilization protein EutH - *Escherichia coli*
similar to ethanolamine utilization protein EutQ
similar to transcriptional regulator
hypothetical protein lmo1190
cbiA cobyrinic acid a,c-diamide synthase
lmo1192 cobD cobalamin biosynthesis protein
lmo1193 cobC cobalt-precorrin-8X methylmutase
lmo1194 cobD cobalt-precorrin-6A synthase
lmo1196 cobalt-precorrin-6Y C(15)-methyltransferase
lmo1198 cobG cobalamin biosynthesis protein CbiG
lmo1200 cbiL cobalt-precorrin-2 C(20)-methyltransferase
lmo1208 cbiP cobyrinic acid synthase
hypothetical protein lmo1209
hypothetical protein lmo1211
similar to N-acetylumamoyl-L-alanine amidase (autolysin)
similar to N-acetylumamoyl-L-alanine amidase (autolysin)
hypothetical protein lmo1219
hypothetical protein lmo1220
pheS phenylalanyl-tRNA synthetase subunit alpha
lmo1231 similar to DNA polymerase beta, to *B. subtilis* YshC protein
lmo1233 trxA thioredoxin
lmo1236 similar to *B. subtilis* YslB protein
lmo1241 hypothetical protein lmo1241
similar to *B. subtilis* YdeL protein
weakly similar to phosphoglycerate mutase 1
hypothetical protein lmo1249
similar to regulator of the Fnr CRP family (including PrfA)
lmo1251 similar to *B. subtilis* YkkD protein
lmo1252 similar to *B. subtilis* GntR family
similar to transcription regulator GntR family
similar to PTS system trehalose specific enzyme IIBC
hypothetical protein lmo1256
hypothetical protein lmo1257
hypothetical protein lmo1258
proB gamma-glutamyl kinase
hypothetical protein lmo1261
similar to transcriptional regulator
hypothetical protein lmo1264
weakly similar to oligopeptide ABC transporter AppA (binding protein)
similar to signal peptidase I
lmo1276 gid tRNA (uracil-5-)methyltransferase Gid
similar to *B. subtilis* YneP protein
similar to *B. subtilis* YneQ protein
conserved hypothetical protein, similar to *B. subtilis* YneS protein
similar to internalin proteins, putative peptidoglycan bound protein (LPXTG motif)
similar to acyltransferase (to *B. subtilis* YrhL protein)
lmo1293 glpD similar to glycerol 3 phosphate dehydrogenase
similar to host factor-1 protein
conserved hypothetical protein similar to *B. subtilis* YnbA protein
hypothetical protein lmo1301
LexA repressor
Putative zinc metalloprotease Lmo1318
lmo1319 proS prolyl-tRNA synthetase
lmo1322 nusA transcription elongation factor NusA
similar to *B. subtilis* YggU protein
similar to comG operon protein 4 (comGD)
similar to *B. subtilis* comG operon protein 2
lmo1349 glycine dehydrogenase subunit 1
similar to aminopeptidase P
exodeoxyribonuclease VII small subunit
similar to geranyltranstransferase
similar to cold shock protein
DNA repair and genetic recombination
butyrate kinase
dihydrolipoamide dehydrogenase
similar to branched-chain alpha-keto acid dehydrogenase E1 subunit (2-oxoisovalerate dehydrogenase alpha subunit)
similar to aminotripeptidase
6-phosphoglucanate dehydrogenase
OxaA-like protein precursor
hypothetical protein lmo1380
acylphosphatase
pyrrolidine-5-carboxylate reductase
hypothetical protein lmo1395

Lm	L _{paracasei} + Lm	L _{caseri} + Lm	L _{paracasei} + Lm	L _{caseri} + Lm	
1.09	1.44	4.22		3.89	
-1.37	-1.0	1.75		2.4	
1.78	-1.0	1.17		-1.78	
-1.39	1.14	1.8		2.5	
-1.37	1.67	1.56	2.29	2.14	
2.1	2.6	2.98		1.42	
-5.56	-3.78	-2.0		2.77	
-1.42	1.07	1.73	1.51		
-3.79	-1.07	-1.09	3.55	3.49	
4.22	-2.05	-2.68	2.06		
8.17	18.33	22.26	2.24	2.72	
1.5	1.05	1.39	-1.43		
-1.34	-1.34	1.15		1.53	
1.83	2.66	3.55		1.95	
1.63	2.25	4.82		2.95	
1.99	3.36	2.86	1.69	1.44	
3.28	3.34	5.22		1.59	
3.29	4.49	4.78			
-1.77	-1.85	1.24		2.19	
-1.69	-1.89	-1.08		1.56	
1.85	2.74	3.54		1.91	
-3.05	-2.38	-1.16		2.63	
1.29	1.37	2.41		1.87	
1.85	2.42	2.89		1.57	
1.72	2.26	3.03		1.77	
-3.64	-2.38	-1.81		2.01	
1.66	3.3	7.14		4.3	
1.92	1.9	4.17		2.17	
-13.86	-6.48	-3.19		4.34	
-10.63	-5.72	-5.1		2.08	
2.32	1.38	1.94	-1.67		
1.97	2.86	2.24	1.45		
2.08	2.01	3.0		1.44	
2.19	3.05	4.77		2.17	
9.03	10.18	16.86		1.87	
-2.28	-1.64	-1.46		1.56	
-1.58	-2.37	-3.05	-1.5		
1.99	1.05	1.96	-1.89		
1.2	1.5	1.92		1.61	
1.91	3.71	4.05	1.95		
2.4	3.44	5.21	1.44	2.17	
-2.82	-1.84	1.04		2.93	
3.18	6.03	8.13	1.89	2.55	
1.17	2.16	9.08		7.75	
-1.01	4.01	7.38		7.44	
1.0	1.59	2.79		2.79	
2.97	6.65	10.1		3.4	
-1.92	-1.95	1.04		1.99	
1.55	2.78	3.62		2.35	
2.43	3.25	4.28		1.76	
1.09	-1.7	1.16	-1.86		
-2.87	-1.35	1.66	2.13	4.78	
1.26	1.08	2.86		2.26	
-16.47	-10.78	-6.91		2.38	
-1.42	-2.08	-2.02	-1.46		
-2.92	-2.17	-1.46		2.0	
1.8	2.39	3.4		1.89	
2.15	2.36	5.99		2.79	
-1.15	1.37	3.1		3.57	
1.07	3.12	2.39	2.91	2.23	
1.38	1.81	3.28			
1.02	1.57	1.91	1.54	1.87	
1.32	1.51	3.99		3.03	
-1.84	1.04	1.06		1.95	
2.28	3.04	3.52		1.54	
1.82	2.0	3.9		2.15	
6.44	8.04	11.58		1.8	
-2.84	-6.73	-4.1	-2.37		
-1.08	-1.47	1.39		1.51	
1.96	2.72	3.26			
-1.12	1.0	1.85		2.08	
-1.11	1.36	1.19	1.52		
-8.58	-3.05	-2.88		2.98	
1.49	3.27	3.02	2.2	2.03	
1.44	2.81	5.56		3.88	
-1.02	1.27	2.43		2.47	
1.16	2.09	3.01	1.79	2.58	
1.33	1.66	2.14		1.6	
-12.21	-22.19	-5.45		2.24	
1.75	2.09	2.74		1.57	
1.02	1.65	2.18		2.14	
-2.1	-1.32	1.45	1.59	3.05	
-1.57	1.33	3.02	2.09	4.73	
-1.12	2.17	5.5	2.42	6.15	
1.79	1.39	2.56		1.43	
1.22	-1.48	-1.36		-1.66	
1.83	2.53	5.89		3.22	
1.29	2.99	7.62		5.93	
-3.05	-2.73	-1.24		2.47	
1.27	3.24	3.39		2.67	
1.05	3.84	2.59		2.46	
-2.28	-2.07	1.13		2.58	

competence damage-inducible protein A
 Imo1397 cinA recombinase A
 Imo1398 recA DNA mismatch repair protein MutS
 Imo1403 mutS similar to multidrug-efflux transporter
 Imo1409 peptidoglycan binding protein
 Imo1413 similar to hydroxy-3-methylglutaryl coenzyme A synthase
 Imo1415 hypothetical protein Imo1416
 Imo1416 hypothetical protein Imo1423
 Imo1423 hypothetical protein Imo1429
 Imo1429 hypothetical protein Imo1430
 Imo1430 hypothetical protein Imo1433
 Imo1433 similar to glutathione reductase
 Imo1434 hypothetical protein Imo1434
 Imo1441 ispG 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase
 Imo1453 hypothetical protein Imo1453
 Imo1454 rpoD RNA polymerase sigma factor RpoD
 Imo1463 similar to cytidine deaminase
 Imo1464 similar to diacylglycerol kinase
 Imo1465 putative metalloprotease
 Imo1470 16S ribosomal RNA methyltransferase RsmE
 Imo1472 dnaJ chaperone protein DnaJ
 Imo1484 comEA similar to integral membrane protein ComEA
 Imo1491 GTP-binding protein YqeH
 Imo1501 hypothetical protein Imo1501
 Imo1502 Holliday junction resolvase-like protein
 Imo1503 hypothetical protein Imo1503
 Imo1504 alaS alanyl-tRNA synthetase
 Imo1505 similar to ABC transporter, ATP-binding protein
 Imo1507 similar to two-component response regulators
 Imo1516 similar to ammonium transporter NrgA
 Imo1520 hisS histidyl-tRNA synthetase
 Imo1522 D-tyrosyl-tRNA(Tyr) deacylase
 Imo1534 similar to L-lactate dehydrogenase
 Imo1535 hypothetical protein Imo1535
 Imo1538 engB ribosome biogenesis GTP-binding protein YsxC
 Imo1561 dnaB chromosome replication initiation / membrane attachment protein DnaB
 Imo1570 pykA pyruvate kinase
 Imo1575 hypothetical protein Imo1575
 Imo1577 metal-dependent hydrolase
 Imo1579 similar to alanine dehydrogenase
 Imo1580 hypothetical protein Imo1580
 Imo1588 argD acetylornithine aminotransferase
 Imo1589 argB acetylglutamate kinase
 Imo1590 argJ bifunctional ornithine acetyltransferase/N-acetylglutamate synthase protein
 Imo1591 argC N-acetyl-gamma-glutamyl-phosphate reductase
 Imo1595 hypothetical protein Imo1595
 Imo1601 similar to general stress protein
 Imo1602 hypothetical protein Imo1602
 Imo1612 hypothetical protein Imo1612
 Imo1613 hypothetical protein Imo1613
 Imo1618 similar to transcription regulator MarR family
 Imo1619 daaA D-amino acid aminotransferase
 Imo1621 weakly similar to *E. coli* MutT protein (dGTP pyrophosphohydrolase)
 Imo1627 trpA tryptophan synthase subunit alpha
 Imo1629 trpF N-(5'-phosphoribosyl)anthranilate isomerase
 Imo1631 trpD anthranilate phosphoribosyltransferase
 Imo1633 trpE anthranilate synthase component I
 Imo1634 bifunctional acetaldehyde-CoA/alcohol dehydrogenase
 Imo1638 hypothetical protein Imo1638
 Imo1639 similar to dna-3-methyladenine glycosidase
 Imo1640 hypothetical protein Imo1640
 Imo1641 citB aconitate hydratase
 Imo1642 similar to putative sigma factor regulator
 Imo1646 similar to putative exonucleases SbcD
 Imo1659 hypothetical protein Imo1659
 Imo1660 leuS leucyl-tRNA synthetase
 Imo1662 similar to conserved hypothetical protein
 Imo1666 peptidoglycan linked protein (LPXTG)
 Imo1674 similar to prolyl aminopeptidases
 Imo1675 menD 2-succinyl-5-enopyruvyl-6-hydroxy-3-cyclohexene-1-carboxylate synthase
 Imo1682 similar to transmembrane transport proteins
 Imo1684 similar to glycerate dehydrogenases
 Imo1694 similar to CDP-abequose synthase
 Imo1698 similar to ribosomal-protein-alanine N-acetyltransferase
 Imo1699 some similarities to methyl-accepting chemotaxis proteins
 Imo1703 similar to similar to RNA methyltransferases
 Imo1707 hypothetical protein Imo1707
 Imo1708 similar to aminoglycoside N3'-acetyltransferases
 Imo1716 similar to putative transcription regulators
 Imo1718 similar to putative outer surface protein
 Imo1719 similar to phosphotransferase system (PTS) lichenan-specific enzyme IIA component
 Imo1720 similar to phosphotransferase system (PTS) lichenan-specific enzyme IIB component
 Imo1725 similar to transcriptional regulator (GntR family)
 Imo1726 hypothetical protein Imo1726
 Imo1731 similar to sugar ABC transporter, permease protein
 Imo1732 similar to sugar ABC transporter, permease protein
 Imo1735 gltC transcription activator of glutamate synthase operon GltC
 Imo1739 similar to amino acid (glutamine) ABC transporter (ATP-binding protein)
 Imo1740 similar to amino acid (glutamine) ABC transporter, permease protein
 Imo1744 hypothetical protein Imo1744

Lm	L _m	L _m paracasei + L _m	L _m casei + L _m	L _m paracasei + L _m	L _m casei + L _m	
5.26	-3.2	-1.57		3.35		Uncharacterized RNA methyltransferase Imo1751
-6.15	-3.05	-1.65		3.72		hypothetical protein Imo1752
-1.32	-1.92	-1.68	-1.46			aspartyl/glutamyl-tRNA amidotransferase subunit A
1.19	1.25	-1.54		-1.83		aspartyl/glutamyl-tRNA amidotransferase subunit C
-1.18	-1.83	-1.72	-1.55	-1.45		ATP-dependent DNA helicase
-2.24	-1.74	-1.06		2.1		similar to putative sodium-dependent transporter
-1.33	1.55	1.43	2.07	1.91		bifunctional phosphoribosylaminoimidazolecarboxamide formyltransferase/IMP cyclohydrolase
-1.3	-1.14	1.34		1.74		phosphoribosylaminoimidazole synthetase
-1.28	1.41	1.51	1.81			phosphoribosylformylglycinamide synthase II
-1.82	1.14	1.01		1.84		phosphoribosylformylglycinamide synthase subunit PurS
1.25	2.29	1.66	1.84			hypothetical protein Imo1777
-1.99	1.02	-1.22	2.02	1.63		similar to ABC transporter (ATP-binding protein)
1.47	3.38	4.51	2.29	3.06		hypothetical protein Imo1781
3.48	-3.24	-2.23		1.56		50S ribosomal protein L19
2.69	2.7	4.24		1.58		weakly similar to Nad(P)h Oxidoreductase chain B
1.47	1.4	3.06		2.08		hypothetical protein Imo1790
1.68	2.81	5.04		3.01		hypothetical protein Imo1791
2.12	3.07	3.73		1.76		tRNA (guanine-N(1)-)methyltransferase
2.8	4.6	4.93	1.64			hypothetical protein Imo1795
3.81	2.67	7.29		1.91		hypothetical protein Imo1798
-2.02	-2.31	-1.24		1.63		hypothetical protein Imo1805
-1.7	-2.83	-2.27	-1.66			ribonuclease III
-1.11	1.45	-1.35	1.62			similar to 3-ketoacyl-acyl carrier protein reductase
-1.19	1.02	1.45		1.73		similar to L-serine dehydratase
-1.09	-1.71	-1.25	-1.57			similar to phosphoglycerate dehydrogenase
2.22	1.55	-1.2		-2.65		similar to putative phosphoprotein phosphatase
1.78	3.01	4.36		2.45		Imo1812
1.87	2.83	5.0		2.67		short chain dehydrogenase
-1.14	1.81	2.74		3.12		Imo1835 carB carbamoyl phosphate synthase large subunit
-2.55	-1.19	1.99	2.13	5.07		dihydroorotate
1.03	1.29	2.41		2.34		Imo1837 pyrC highly similar to uracil permease
-1.66	1.03	1.25		2.07		Imo1842 hypothetical protein Imo1842
101...	-50.28	-28.39	2.02	3.58		hypothetical protein Imo1845
31.24	28.48	-10.32		3.03		similar to adhesion binding proteins and lipoproteins with multiple specificity for metal cations (ABC transporter)
1.14	1.51	2.41		2.12		similar metal cations ABC transporter (permease protein)
-1.12	1.11	2.08		2.33		similar to carboxy-terminal processing proteinase
1.94	3.79	3.85		1.99		hypothetical protein Imo1854
-3.91	1.14	1.56	4.44	6.09		hypothetical protein Imo1858
-2.96	-1.24	1.7	2.4			similar to dehydrogenases and hypothetical proteins
1.82	6.41	11.49	3.52	6.3		hypothetical protein Imo1865
-1.01	-1.69	2.28		2.31		hypothetical protein Imo1866
1.82	2.41	5.06		2.78		pyruvate phosphate dikinase
-1.88	-1.75	-1.19		1.57		similar to conserved hypothetical proteins, putative integral membrane protein
8.2	29.04	25.65		3.13		similar to phosphoglucomutases
-4.71	-4.49	-1.32		3.55		similar to dihydrofolate reductases
-1.62	-1.24	-1.14		2.03		similar to chitinases
2.4	4.89	4.1				similar to xanthine permeases
1.47	1.45	-1.11		-1.64		similar to penicillin-binding protein 2A
2.34	2.9	3.35		1.43		Imo1895 dnaD similar to chromosome replication initiation protein
1.08	2.06	2.07		1.91		Imo1897 aspB aspartate aminotransferase
-1.61	-1.02	1.72		2.76		Imo1902 panB 3-methyl-2-oxobutanoate hydroxymethyltransferase
1.11	1.77	2.13	1.6	1.93		Imo1904 birA similar to transcriptional regulator and biotin acetyl-CoA-carboxylase synthetase
-4.27	-4.27	-2.99		1.43		Imo1910 imo1912 similar to unknown proteins (hypothetical sensory transduction histidine kinase)
-3.15	-2.98	-1.63		1.93		hypothetical protein Imo1922 chorismate synthase
-1.18	-1.09	1.68		1.98		similar to heptaprenyl diphosphate synthase component II (menaquinone biosynthesis)
1.73	2.58	3.01		1.74		ubiquinone/menaquinone biosynthesis methyltransferase
1.81	3.28	3.29		1.81		similar to heptaprenyl diphosphate synthase component I
1.1	2.21	2.56	2.01	2.34		GTP cyclohydrolase I
-11.3	-7.84	-6.83		1.66		Imo1933 folE NAD(P)H-dependent glycerol-3-phosphate dehydrogenase
-1.12	1.39	1.36		1.52		Imo1941 hypothetical protein Imo1941
1.06	1.24	1.61		1.52		Imo1943 hypothetical protein Imo1943
-1.15	1.65	2.33	1.89	2.67		Imo1946 similar to similar to acyl-CoA hydrolase
-1.6	-1.15	1.02		1.63		Imo1948 resD similar to two-component response regulator (ResD)
-2.38	-3.7	-2.12	-1.56			Imo1949 hypothetical protein Imo1949
1.09	2.53	11.17		10.3		similar to ferrichrome binding protein
-1.48	-1.46	1.78		2.64		similar to ferrichrome ABC transporter (ATP-binding protein)
-5.92	-4.11	-1.53		3.85		similar to oxidoreductases
1.45	2.17	2.48		1.71		Imo1962 similar to transcription regulators (TetR family)
1.83	2.29	3.37		1.84		hypothetical protein Imo1963
2.01	2.91	4.29	1.45	2.14		similar to ABC transporter, ATP-binding protein
-1.63	-1.21	1.65		2.69		Imo1965 hypothetical protein Imo1965
2.13	2.29	5.0		2.35		similar to creatinine amidohydrolases
1.83	3.2	7.92		4.33		PTS system ascorbate-specific transporter subunit IIC
1.11	-1.79	-1.76	-1.99	-1.96		Imo1971 ulaA hypothetical protein Imo1980
10.93	-2.77	-2.29		4.78		hypothetical protein Imo1980
-2.56	1.78	1.56		3.98		hypothetical protein Imo1983 ilvD dihydroxy-acid dehydratase
-1.31	-1.92	1.44		1.88		similar to acetolactate synthase (acetohydroxy-acid synthase) (large subunit)
-4.11	-3.11	-1.77		2.32		Imo1984 ilvB acetolactate synthase 3 regulatory subunit
1.66	5.31	7.02		4.22		Imo1985 ilvH ketol-acid reductoisomerase
1.23	2.06	3.63		2.95		Imo1987 leuA 2-isopropylmalate synthase
-1.2	1.54	2.47		2.97		Imo1988 leuB 3-isopropylmalate dehydrogenase
1.0	1.95	3.83		3.82		Imo1989 leuC isopropylmalate isomerase large subunit
1.28	2.3	1.18	1.8			Imo1991 ilvA threonine dehydratase
1.46	2.72	1.59	1.87			similar to transcription regulators (LacI family)
2.05	8.23	7.81		3.81		deoxyribose-phosphate aldolase
3.49	5.32	5.7	1.53	1.64		similar to PTS mannose-specific enzyme IIA component
2.78	5.07	5.82	1.82			similar to PTS mannose-specific enzyme IID component
2.19	3.88	3.9		1.78		similar to PTS mannose-specific enzyme IIC component
2.4	7.5	2.7	3.13			similar to PTS mannose-specific enzyme IIB component
1.8	4.06	2.95	2.25			similar to transcription regulator GntR family
-1.05	1.01	2.57		2.7		similar to transcription regulator GntR family
2.81	3.42	6.84		2.43		similar to putative ABC transporter, permease protein

Lm	L _c parcaser + Lm	L _c aser + Lm	L _c parcaser + Lm	L _c aser + Lm	
2.86	5.93	6.64	2.07	2.33	imo2009
1.13	1.19	2.22		1.96	similar to putative transport system integral membrane protein
1.15	1.97	3.36		2.93	similar to two-component sensor histidine kinase
2.59	2.88	8.8		3.39	hypothetical protein Imo2013
1.42	3.37	6.33		4.46	similar to putative sugar hydrolases
1.25	1.8	2.45		1.95	imo2014
-5.13	-7.62	-3.63		1.41	similar to alpha-mannosidase
1.02	1.31	1.88		1.85	imo2015
1.49	2.12	3.31		2.21	similar to putative sugar hydrolases
1.05	1.49	4.48		4.25	imo2016
1.26	1.37	4.34		3.43	cspB
2.07	3.43	8.43		4.08	similar to major cold-shock protein
1.05	1.77	4.12		3.93	diaminopimelate epimerase
1.13	1.45	1.77		1.56	imo2018
2.65	1.92	1.48		1.79	similar to putative transport system integral membrane protein
1.45	-1.05	-1.22		1.77	imo2021
1.96	1.57	1.29		1.52	similar to NifS-like protein required for NAD biosynthesis
-1.99	-1.35	1.37		2.72	imo2022
-1.63	-1.31	1.74		2.83	nadb
-1.32	-1.19	1.27		1.68	L-aspartate oxidase
1.04	1.35	2.25		2.16	imo2023
-2.43	-1.81	-1.72		1.41	nadC
1.18	1.83	2.35		1.99	imo2024
4.27	5.87	9.99		2.34	nicotinate-nucleotide pyrophosphorylase
9.77	14.39	22.61	1.47	2.32	imo2025
-1.25	1.62	1.9	2.02	2.37	nada
-1.21	1.6	2.11		2.56	imo2027
-2.2	-2.19	-1.28		1.72	putative cell-surface protein, internalin proteins
-5.64	-3.79	-3.46	1.49	1.63	imo2028
-1.47	-1.27	1.19		1.75	hypothetical protein Imo2049
-1.25	1.02	1.31		1.64	imo2050
3.92	9.56	11.54	2.44	2.94	hypothetical protein Imo2054
1.02	-1.67	1.08	-1.7		imo2057
-1.81	-1.12	1.58		2.86	protoheme IX farnesyltransferase
-1.19	-1.2	1.22		1.45	ctAB
1.71	5.16	4.54	3.01	2.65	similar to potassium channel subunit
2.25	5.42	4.19	2.41		imo2059
3.99	6.19	13.13		3.29	similar to cell-division protein FtsL
5.9	10.86	16.44	1.84	2.79	imo2060
-1.27	1.24	1.45		1.84	similar to integral membrane proteins
-1.06	-1.2	2.01		2.13	imo2061
1.83	1.74	2.79		1.52	similar to conjugated bile acid hydrolase
-1.37	1.29	1.73	1.77	2.37	imo2062
-1.39	1.28	2.51		1.78	similar to transcription antiterminator
-7.04	-3.24	-2.02		3.49	imo2063
-2.47	-1.69	-1.37		1.8	co-chaperonin GroES
2.16	3.09	9.39		4.35	imo2064
7.88	8.81	15.31		1.94	similar to conjugated bile acid hydrolase
-2.53	-1.43	-1.77	1.77	1.43	imo2065
1.17	2.27	3.14		2.68	similar to transcriptional regulator, LacI family
1.26	2.24	2.87	1.79	2.29	imo2066
4.32	7.3	11.91		2.76	similar to ferrous iron transport protein B
5.24	9.32	14.69		2.8	imo2067
2.29	3.56	7.71		3.36	similar to maltodextrose utilization protein MalA
2.43	3.24	4.82		1.99	imo2068
-3.82	-2.68	-1.63		2.35	similar to PTS system galactitol-specific enzyme IIB component
3.38	2.69	1.56		-2.16	imo2069
2.66	3.61	4.74		1.78	similar to PTS system galactitol-specific enzyme IIA component
2.91	6.05	4.78	2.08		imo2070
1.16	-1.53	-1.77		-2.06	similar to PTS system fructose-specific enzyme IIC component
5.7	6.93	8.42		1.48	imo2071
1.42	3.67	7.32	2.58	5.15	similar to PTS system fructose-specific enzyme IIA component
2.31	2.69	5.06		2.19	imo2072
2.86	3.65	5.69		1.99	similar to ABC transporter (membrane protein)
-1.72	1.2	1.36	2.07		imo2073
2.56	5.64	12.79	2.2	5.0	similar to ABC transporter (permease)
1.56	2.97	2.54		1.63	imo2074
-1.5	1.28	2.04		3.07	similar to transcription antiterminator
-6.34	-1.98	-1.01		6.28	imo2075
-1.15	-1.13	1.37		1.58	similar to transcriptional regulator Spx
1.62	1.91	2.31		1.42	imo2076
-3.84	-4.11	-1.51		2.54	similar to transcriptional regulator SpvA
-4.96	-2.84	1.17		5.78	imo2077
-2.42	-1.01	-1.16	2.4		tryptophanyl-tRNA synthetase
1.33	1.69	2.08		1.57	imo2078
2.56	3.93	5.9	1.54	2.31	similar to transcriptional regulator SpvB
3.33	5.2	7.06	1.56	2.12	imo2079
-7.22	-5.02	-2.54		2.84	similar to transcriptional regulator SpvC
-2.36	-1.51	-1.77	1.56		imo2080
2.53	2.88	4.66		1.84	similar to transcriptional regulator SpvD
-1.27	1.24	1.09	1.58		imo2081
-1.24	1.4	1.01	1.74		similar to transcriptional regulator SpvE
-2.43	-1.26	-1.58		1.54	imo2082
1.25	1.8	5.36		4.28	similar to transcriptional regulator SpvF
-1.24	1.68	2.08		2.57	imo2083
2.39	3.5	4.77		2.0	similar to transcriptional regulator SpvG
1.18	1.44	2.53		2.15	imo2084
3.16	6.96	12.36		3.91	similar to transcriptional regulators (LysR family)
2.68	3.82	8.0		2.98	shikimate 5-dehydrogenase
2.37	-1.04	1.98	-2.46		similar to transport system permease protein
1.34	2.11	7.48		5.59	IMO2239
-3.5	-3.64	-1.62		2.16	hypothetical protein Imo2240

Lm	L _m	L _m paracasei + L _m	L _m casei + L _m	L _m paracasei + L _m	L _m casei + L _m	
1.05	1.59	2.18		2.08		lmo2247 similar to oxidoreductase
-1.83	1.05	1.28		1.91	2.34	lmo2251 similar to amino acid ABC transporter (ATP-binding protein)
-2.05	-1.03	1.89		2.0	3.87	lmo2256 hypothetical protein lmo2256
1.11	1.17	1.66			1.49	lmo2257 hypothetical protein lmo2257
1.93	1.26	1.11			-1.73	lmo2258 hypothetical protein lmo2258
-3.31	-2.61	-1.85			1.78	lmo2261 hypothetical protein lmo2261
-2.66	-2.18	-1.39			1.91	lmo2262 hypothetical protein lmo2262
-3.22	-1.67	-1.56		1.93	2.06	lmo2263 similar to unkown proteins
1.59	2.63	1.89		1.66		lmo2266 hypothetical protein lmo2266
-1.18	-1.03	1.28			1.51	lmo2268 addB similar to ATP-dependent deoxyribonuclease (subunit B)
-1.88	-1.46	1.75			3.29	lmo2269 hypothetical protein lmo2269
-2.37	-1.36	-1.08			2.2	lmo2270 comK' similar to competence transcription factor ComK, N terminal part
1.66	-1.09	1.71			2.83	lmo2272 hypothetical protein lmo2272
2.07	1.18	1.82		-1.75		lmo2274 protein gp29
2.05	2.78	4.89			2.38	lmo2275 protein gp28
-3.14	-2.01	-1.67			1.88	lmo2277 hypothetical protein lmo2277
3.82	5.81	7.71			2.02	lmo2278 lysA L-alanoyl-D-glutamate peptidase
2.18	1.48	3.34			1.53	lmo2280 protein gp23
1.37	1.46	3.19			2.33	lmo2282 protein gp21
3.45	3.84	7.66			2.22	lmo2290 protein gp13
1.57	2.88	5.9			3.75	lmo2300 putative terminase large subunit from bacteriophage A118
1.55	1.85	3.36			2.17	lmo2304 bacteriophage A118 gp65 protein
-1.0	1.33	1.56			1.56	lmo2334 similar to transcriptional regulator
1.75	-2.43	1.08		-4.25		lmo2335 fruA highly similar to phosphotransferase system (PTS) fructose-specific enzyme IIABC component
5.6	1.36	3.96		-4.11		lmo2336 fruB fructose-1-phosphate kinase
3.09	-1.86	1.62		-5.76		lmo2337 similar to regulatory protein DeoR family
-1.83	-1.21	1.25			2.28	lmo2338 pepC aminopeptidase C
-1.02	1.18	2.09			2.14	lmo2342 similar to 16S pseudouridylate synthase
-2.68	-1.36	1.38			3.71	lmo2343 similar to nitrilotriacetate monooxygenase
-2.41	1.21	1.76		2.9	4.23	lmo2345 hypothetical protein lmo2345
-1.75	1.8	3.68		3.16	6.45	lmo2346 similar to amino acid ABC-transporter, ATP-binding protein
-1.58	1.05	1.39		1.66	2.19	lmo2347 similar to amino acid ABC transporter (permease)
2.45	2.69	6.24			2.55	lmo2348 similar to amino acid ABC-transporter (permease)
-2.3	-1.06	3.02			6.95	lmo2350 similar to <i>B. subtilis</i> Ytm1 protein
-2.63	1.09	-1.09		2.85	2.41	lmo2351 similar to NADH-dependent FMN reductase
-1.14	-1.23	1.97			2.26	lmo2354 hypothetical protein lmo2354
-2.94	-2.93	-1.44			2.04	lmo2355 Similar to multidrug resistance protein
-1.07	1.61	2.69		1.73	2.89	lmo2356 hypothetical protein lmo2356
4.21	16.02	21.62			5.14	lmo2362 similar to amino acid antiporter (acid resistance)
4.39	5.77	10.1			2.3	lmo2363 similar to glutamate decarboxylase
1.66	1.31	2.62			1.58	lmo2370 similar to aminotransferase
1.11	1.59	1.61			1.45	lmo2373 similar to phosphotransferase system (PTS) beta-glucoside-specific enzyme IIB component
-2.86	-2.43	-1.77			1.62	lmo2376 similar to pepI peptide/prolyl cis-trans isomerase
-1.16	1.29	1.79		1.5	2.07	lmo2379 putative monovalent cation/H ⁺ antiporter subunit B
-1.21	1.08	1.5			1.83	lmo2382 putative monovalent cation/H ⁺ antiporter subunit E
1.1	1.27	1.64			1.48	lmo2383 putative monovalent cation/H ⁺ antiporter subunit F
-1.71	-1.36	1.47			2.51	lmo2384 putative monovalent cation/H ⁺ antiporter subunit G
1.02	1.39	2.02			1.98	lmo2386 similar to <i>B. subtilis</i> YuiL protein
3.19	5.7	4.9		1.79	1.53	lmo2387 hypothetical protein lmo2387
-1.22	1.12	1.19			1.45	lmo2388 similar to <i>B. subtilis</i> YwgQ protein
-9.85	-9.64	-4.96			1.99	lmo2390 similar to hypothetical thioredoxin reductase
2.32	6.89	10.42		2.97	4.49	lmo2391 conserved hypothetical protein similar to <i>B. subtilis</i> YhfK protein
-1.71	1.07	1.4		1.83	2.4	lmo2393 similar to <i>B. subtilis</i> YuzD protein
3.86	6.89	9.31			2.41	lmo2395 hypothetical protein lmo2395
1.31	3.15	3.37		2.41	2.57	lmo2396 similar to internalin proteins, putative peptidoglycan bound protein (LPXTG motif)
-1.12	1.22	1.38			1.54	lmo2398 Itrc hypothetical protein lmo2398
1.23	2.96	4.5		2.4	3.65	lmo2399 hypothetical protein lmo2399
-1.14	-1.17	1.42			1.61	lmo2401 similar to conserved hypothetical protein and to <i>B. subtilis</i> YunF protein
-1.16	1.26	1.58		1.46	1.84	lmo2403 similar to <i>B. subtilis</i> YunD protein
1.16	1.3	1.8			1.56	lmo2406 similar to <i>B. subtilis</i> YunF protein
-2.25	-2.32	1.27			2.84	lmo2408 similar to repressor protein
-1.48	-2.15	-2.13			-1.44	lmo2418 similar to ABC transporter, permease protein
3.93	-3.16	-2.14			1.83	lmo2420 hypothetical protein lmo2420
1.17	1.54	2.04			1.75	lmo2424 similar to thioredoxin
-1.02	1.22	1.45			1.47	lmo2425 glycine cleavage system protein H
1.23	2.28	7.91		1.86	6.46	lmo2432 hypothetical protein lmo2432
7.96	-3.63	-1.47		2.19	5.41	lmo2433 similar to acetyl esterase
4.23	6.21	10.29			2.43	lmo2434 highly similar to glutamate decarboxylases
1.75	2.16	2.73			1.57	lmo2442 hypothetical protein lmo2442
-7.89	-3.21	-2.05			3.85	lmo2443 hypothetical protein lmo2443
2.05	2.47	4.82			2.35	lmo2445 similar to internalin
-1.04	1.29	2.14			2.23	lmo2447 similar to transcription regulator
1.34	2.78	2.79			2.09	lmo2448 smpB SsrA-binding protein
-1.16	1.53	1.55			1.8	lmo2449 similar to exoribonuclease RNase-R
-1.37	-1.52	1.26			1.73	lmo2450 similar to carboxylesterase
1.18	1.21	2.59			2.2	lmo2452 similar to carboxylesterase
2.4	6.11	8.06		2.55	3.36	lmo2453 similar to lipolytic enzyme
5.95	10.51	16.42			2.76	lmo2454 hypothetical protein lmo2454
-1.56	-1.16	1.18			1.84	lmo2455 eno phosphopyruvate hydratase
-1.94	-1.21	1.07		1.6	2.07	lmo2456 pgm phosphoglyceromutase
-1.81	-1.03	1.17		1.76	2.12	lmo2457 tpiA triosephosphate isomerase
-1.39	-1.04	1.44			1.58	lmo2458 pgk phosphoglycerate kinase
-2.61	-1.66	-1.35		1.85	1.94	lmo2459 gap glyceraldehyde-3-phosphate dehydrogenase
-2.71	-1.47	-1.4		1.65		lmo2460 similar to <i>B. subtilis</i> CggR hypothetical transcriptional regulator
1.49	2.47	4.87			1.44	lmo2463 similar to transport protein
-2.2	-1.81	-1.49			1.48	lmo2465 hypothetical protein lmo2465
3.75	-1.42	1.08		2.64		lmo2466 hypothetical protein lmo2466
1.42	2.8	1.56			1.97	lmo2467 similar to chitinase and chitin binding protein
1.02	2.66	6.07		2.6	5.95	lmo2470 similar to internalin proteins
-1.03	1.12	1.4			1.44	lmo2485 similar to <i>B. subtilis</i> yvIC protein
-2.11	-3.24	-3.35			-1.59	lmo2489 uvrB excinuclease ABC subunit B
4.29	-2.99	-2.42			1.77	lmo2490 similar to <i>B. subtilis</i> CsbA protein

				Lm	L _c casei + Lm	L _c paracasei + Lm	L _c casei + Ln	
2.49	6.17	9.33			3.75			phosphate transporter ATP-binding protein
2.79	4.57	6.5			2.33			similar to phosphate ABC transporter (permease protein)
2.93	3.4	8.82			3.01			similar to phosphate ABC transporter (permease protein)
1.72	2.95	3.32			1.93			similar to phosphate ABC transporter (binding protein)
3.08	3.75	5.84			1.89			similar to conserved hypothetical proteins like to B. subtilis YvyD protein
1.97	1.85	5.64			2.86			similar to late competence protein comFC
-1.34	2.03	4.91			6.56			similar to late competence protein comFA
-1.08	-1.7	-1.09			-1.57			similar to B. subtilis TagA protein involved in polyglycerol phosphate biosynthesis
1.27	1.48	1.89			1.49			F0F1 ATP synthase subunit alpha
-1.15	1.16	1.24			1.43			F0F1 ATP synthase subunit C
-5.27	-4.81	-2.88			1.83			similar to UDP-N-acetylglucosamine 2-epimerase
-1.56	-2.71	-1.63			-1.74			serine hydroxymethyltransferase
-2.55	-4.46	-2.6			-1.75			wall teichoic acid glycosylation protein GtcA
-3.56	-1.67	-1.11			3.2			rho transcription termination factor Rho
-4.58	-4.11	-1.9			2.42			hypothetical protein lmo2553
-3.87	-2.63	-1.84			2.1			CTP synthetase
-1.93	-2.97	-1.27			-1.53			similar to dipeptide ABC transporter (dipeptide-binding protein)
2.61	4.32	5.31			2.04			hypothetical protein lmo2570
2.32	3.97	6.68			1.71			similar to nicotinamidase
2.87	5.5	7.49			1.91			similar to Chain A, Dihydrofolate Reductase
8.48	11.0	18.93			2.23			similar to zinc-binding dehydrogenase
-2.02	1.1	1.9			2.21			hypothetical protein lmo2574
1.41	1.42	3.89			2.77			peptidoglycan bound protein
-1.58	1.16	1.75			2.77			hypothetical protein lmo2577
13.21	18.54	27.86			2.11			formate dehydrogenase accessory protein
1.22	2.06	1.64			1.69			GW repeat-containing surface protein
1.26	1.53	2.15			1.7			similar to transcription regulators (MerR family)
1.18	1.27	1.9			1.5			hypothetical protein lmo2594
2.59	2.61	7.1			2.74			hypothetical protein lmo2595
2.23	4.2	6.44			1.88			hypothetical protein lmo2602
-1.8	-1.23	-1.28			1.47			50S ribosomal protein L36
2.59	3.57	4.7			1.82			hypothetical protein lmo2643
3.28	6.62	9.4			2.02			hypothetical protein lmo2644
1.55	5.53	19.7			12.67			hypothetical protein lmo2646
1.73	6.23	20.6			11.93			similar to creatinine amidohydrolase
1.79	7.17	22.09			4.0			similar to Phosphotriesterase
1.31	7.55	26.72			20.32			similar to PTS system ascorbate-specific transporter subunit IIC
1.16	6.68	19.35			5.77			similar to PTS system ascorbate-specific transporter subunit IIB component
1.6	7.26	20.1			12.58			similar to mannitol-specific PTS enzyme IIA component
1.78	3.41	3.93			1.91			hypothetical protein lmo2670
1.76	2.84	3.08			1.61			hypothetical protein lmo2671
1.6	2.26	3.34			2.08			weakly similar to transcription regulator
3.03	5.47	11.49			1.81			hypothetical protein lmo2673
3.1	4.7	11.19			3.6			ribose-5-phosphate isomerase B
-1.14	-1.25	1.82			2.09			similar to UV-damage repair protein
1.44	2.12	2.17			1.51			similar to the two components sensor protein kdpD
-1.55	-1.1	2.09			3.24			kdpC potassium-translocating atpase c chain
1.55	3.06	4.81			3.1			kdpB potassium-translocating ATPase subunit B
1.32	2.98	4.44			3.36			kdpA potassium-translocating ATPase subunit A
-1.47	1.85	3.58			2.71			similar to cellobiose phosphotransferase enzyme IIB component
1.86	1.77	3.81			2.05			similar to cellobiose phosphotransferase enzyme IIC component
-1.93	2.05	3.53			6.8			similar to cell division protein FtsW
1.24	1.92	2.43			1.55			similar to lysine decarboxylase
2.62	3.8	6.96			2.65			dihydroxyacetone kinase subunit DhaK
3.37	4.9	7.73			1.46			similar to hypothetical dihydroxyacetone kinase
3.88	5.42	7.53			1.94			phosphotransferase mannose-specific family component IIA
-6.9	-3.65	-2.18			3.17			similar to B. subtilis YaaL protein
1.14	-1.18	2.15			1.88			hypothetical protein lmo2707
2.04	4.65	6.95			2.28			hypothetical protein lmo2709
-4.16	-3.3	-1.71			2.43			hypothetical protein lmo2710
-1.29	-1.22	1.95			2.52			peptidoglycan bound protein
-2.74	-3.18	-1.75			1.57			cydD highly similar to ABC transporter (ATP-binding protein) required for expression of cytochrome BD
9.39	-7.73	-2.83			3.32			similar to acetate-CoA ligase
1.03	2.15	1.7			2.09			putative 6-phosphoglucuronolactonase
-1.08	1.13	1.36			1.47			hypothetical protein lmo2724
1.53	3.75	8.53			5.56			similar to transcription regulator MerR family
2.1	3.44	5.19			2.47			hypothetical protein lmo2729
41.79	60.4	71.83			1.72			similar to phosphatase
52.01	72.48	80.65			1.55			similar to transcription regulator (RpiR family)
1.56	2.48	2.31			1.59			hypothetical protein lmo2732
2.83	4.66	5.27			1.65			similar to PTS system, fructose-specific IIABC component
-1.67	-3.54	-2.77			-2.12			similar to transcriptional regulator (Laci family)
1.13	1.37	1.8			1.6			similar to ABC transporter (ATP-binding protein)
-3.4	-3.53	-2.29			1.49			similar to ABC transporter, ATP-binding protein
1.07	2.05	2.93			1.92			hypothetical protein lmo2759
-2.31	-1.42	1.35			3.1			similar to ABC transporter, ATP-binding protein
5.15	9.18	20.3			3.94			similar to beta-glucosidase
-1.66	1.18	1.49			1.95			similar to transcription antiterminator
1.8	2.8	6.29			3.5			similar to ABC transporter, ATP-binding protein
1.97	3.15	3.98			2.02			hypothetical membrane protein
1.36	3.42	4.41			3.24			hypothetical protein lmo2776
-1.52	-1.24	1.59			2.42			similar to efflux protein
5.69	-3.38	-2.42			2.35			hypothetical protein lmo2778
1.34	2.67	4.34			1.99			similar to beta-glucosidase
1.27	2.69	3.9			3.06			similar to lichen operon transcription antiterminator licR
1.18	2.46	7.47			6.33			bvrB beta-glucoside-specific phosphotransferase enzyme II ABC component
1.47	2.17	3.48			2.37			hypothetical protein lmo2792
1.51	3.09	4.49			2.98			similar to phosphatase
1.3	1.7	4.4			3.38			hypothetical protein lmo2803
1.24	2.67	3.28			2.16			hypothetical secreted protein
1.34	2.28	3.48			2.59			hypothetical secreted protein
1.03	1.63	2.22			2.14			hypothetical secreted protein

<i>Lm</i>	<i>L. paracasei</i> + <i>Lm</i>	<i>L. casei</i> + <i>Lm</i>	<i>L. paracasei</i> + <i>Lm</i>	<i>L. casei</i> + <i>Lm</i>	
1.31	2.58	1.86	1.98		gidA
-1.81	-1.35	1.62		2.94	
2.29	2.94	5.01		2.19	
2.25	5.09	7.7	2.27	3.42	
3.17	4.44	8.21		2.59	
8.39	-7.0	-5.03		1.67	
-1.27	1.35	3.08		3.91	
-3.21	-5.26	-2.06	-1.64	1.56	
-4.19	-2.47	-2.13		1.97	
-2.31	1.24	1.47	2.85	3.39	
-3.79	-2.31	-1.18		3.22	
1.34	2.27	2.7		2.02	
1.18	6.06	5.67	5.12	4.79	
1.23	1.79	4.41		3.58	
1.24	2.86	3.21		2.59	
-3.02	-3.49	-1.81		1.67	
4.45	10.4	15.93	2.34	3.58	
6.39	8.46	16.67		2.61	
3.2	6.03	12.51		3.91	
4.94	8.33	11.98		2.43	
-1.51	1.43	2.65		4.0	
1.6	-1.1	1.42	-1.76		
-5.05	-5.26	-3.23		1.56	
-2.12	-1.78	-1.16		1.83	
					rpmH
					hypothetical protein Imo2857