

**Supplementary Table 1: List of TaqMan Gene Expression assays used in the expression experiments (LifeTechnologies).**

<b>Assay ID</b>	<b>Chromosome</b>	<b>Gene Symbol</b>	<b>Gene Name</b>	<b>NCBI Reference Sequence</b>	<b>Target Exons</b>	<b>Amplicon Length</b>	<b>Position</b>
Hs00175260_m1	1	<b>RGS1</b>	regulator of G-protein signaling 1	NM_002922.3	3-4	115 bp	346
Hs00998604_m1	1	<b>TNFRSF14</b>	tumor necrosis factor receptor superfamily, member 14	NM_003820.2	6 - 7	102 bp	987
Hs00968436_m1	2	<b>REL</b>	v-rel reticuloendotheliosis viral oncogene homolog (avian)	NM_002908.2	10-11	86 bp	1312
Hs00944352_m1	3	<b>LPP</b>	LIM domain containing preferred translocation partner in lipoma	NM_001167671.1	8-9	85 bp	1593
Hs00361070_m1	4	<b>KIAA1109</b>	KIAA1109	NM_015312.3	43-44	66 bp	7360
Hs99999908_m1	7	<b>GUSB</b>	glucuronidase, beta	NM_000181.3	11-12	81 bp	1913
Hs00611823_m1	6	<b>TAGAP</b>	T-cell activation RhoGTPase activating protein	NM_054114.3	9-10	64 bp	1230
Hs00234713_m1	6	<b>TNFAIP3</b>	tumor necrosis factor, alpha-induced protein 3	NM_006290.2	2-3	63 bp	363
Hs00193878_m1	12	<b>SH2B3</b>	SH2B adaptor protein 3	NM_005475.2	2-3	81 bp	1089
Hs00542477_m1	19	<b>TNFSF14</b>	tumor necrosis factor (ligand) superfamily, member 14	NM_003807.3	4-5	69 bp	685

Supplementary Table 2: Genotypes of risk variants in the study cohort

SNP	Chr.	Locus	Alleles*	M.A.F.†	FREQ CD	FREQ Not CD at 6 years	$\chi^2$	p value
rs2816316	1	RGS1	C/A	0.160	AA 88.9% (8/9) AC 11.1% (1/9) CC 0% (0/9)	AA 68.2% (9/13) AC 30.8% (4/13) CC 0% (0/13)	1.869	0.393
rs3748816	1	TNFRSF14	C/A	0.477	AA 33.3% (3/9) AC 66.6% (6/9) CC 0% (0/9)	AA 76.9% (10/13) AC 23.1% (3/13) CC 0% (0/13)	<b>5.743</b>	<b>0.057</b>
rs842647	2	c-REL	A/G	0.482	AA 88.8% (8/9) AG 0% (0/9) GG 11.1% (1/9)	AA 61.5% (8/13) AG 38.5% (5/13) GG 0% (0/13)	<b>9.097</b>	<b>0.056</b>
rs1464510	3	LPP	C/A	0.453	AA 22.2% (2/9) AC 55.6% (5/9) CC 22.2% (2/9)	AA 23.1% (3/13) AC 61.5% (8/13) CC 15.4% (2/13)	0.231	0.994
rs13151961	4	KIAA1109	A/G	0.066	AA 55.6% (5/9) AG 44.4% (4/9) GG 0% (0/9)	AA 84.6% (11/13) AG 15.4% (2/13) GG 0% (0/13)	2.917	0.233
rs2327832	6	OLIG-TNFAIP3	A/G	0.102	AA 66.6% (6/9) AG 33.3% (3/9) GG 0% (0/9)	AA 16.9% (10/13) AG 15.4% (2/13) GG 7.7% (1/13)	2.439	0.565
rs1738074	6	TAGAP	A/G	0.441	AA 0% (0/9) AG 66.7% (6/9) GG 33.3% (3/9)	AA 15.4% (2/13) AG 76.9% (10/13) GG 7.7% (1/13)	5.079	0.279
rs3184504	12	SH2B3	G/A	0.218	AA 100% (9/9) AG 0% (0/9) GG 0% (0/9)	AA 38.5% (5/13) AG 61.5% (8/13) GG 0% (0/13)	<b>14.930</b>	<b>0.001</b>
rs2279627	19	TNFSF14	C/G	0.295	CC 22.2% (2/9) CG 44.4% (4/9) GG 33.3% (3/9)	CC 53.8% (7/13) CG 30.8% (4/13) GG 15.4% (2/13)	3.434	0.488

\*Boldface indicates the CD risk allele †Minor allele frequencies in a Caucasian population

**Supplementary Table 3: Raw Data of gene expression analysis**

ID	Status	KIAA1109 T1	KIAA1109 T2	KIAA1109 T3	TAGAP T1	TAGAP T2	TAGAP T3	SH2B3 T1	SH2B3 T2	SH2B3 T3	LPP T1	LPP T2	LPP T3	RGS1 T1	RGS1 T2	RGS1 T3
P1	Celiac	2,47	1,55	1,85	1,11	1,67	1,64	1,34	1,09	2,12	1,03	0,90	1,12	0,31	1,31	2,51
P2	Celiac	1,32	1,95	1,96	0,52	1,05	1,13	4,82	1,40	1,08	0,77	1,12	1,32	0,75	5,42	6,87
P3	Celiac	0,99	1,00	0,93	0,96	0,81	1,35	1,49	1,71	2,42	1,27	0,84	0,58	2,65	0,10	6,31
P4	Celiac	2,25	0,61	0,92	2,00	0,86	0,81	1,53	2,65	2,03	1,74	1,23	1,03	5,46	1,40	5,95
P5	Celiac	1,07	2,19	1,80	2,31	1,88	1,32	0,07	2,01	1,97	0,58	0,77	0,99	0,61	1,51	3,79
P6	Celiac	2,21	2,20	3,54	1,91	0,76	1,52	1,79	2,80	1,93	1,43	2,12	1,03	0,06	2,32	0,81
P7	Celiac	4,34	2,06	1,80	2,52	1,00	1,32	2,89	1,42	1,97	1,77	0,56	0,99	9,65	0,55	3,79
P8	Celiac	2,01	1,87	1,57	1,63	2,17	1,45	2,03	8,11	2,23	1,21	1,54	0,84	2,53	1,80	0,28
P9	Celiac	1,42	0,00	1,80	1,69	1,45	1,32	2,32	2,65	1,97	1,06	1,13	0,99	0,72	10,67	3,79
P10	Not Celiac	1,78	1,76	1,84	1,14	1,48	1,30	3,77	3,13	1,86	1,77	1,92	1,09	2,97	1,98	3,92
P11	Not Celiac	2,13	1,50	3,24	1,75	0,57	1,39	1,07	1,25	1,56	1,56	0,71	1,26	1,31	0,46	3,12
P12	Not Celiac	1,34	0,60	1,09	0,96	0,99	0,18	1,43	1,13	2,05	1,04	0,17	0,54	2,77	3,16	5,78
P13	Not Celiac	1,02	1,02	1,28	0,53	1,08	1,40	1,86	1,26	1,42	1,23	1,20	0,58	2,87	0,10	0,37
P14	Not Celiac	1,63	1,33	2,19	0,48	0,20	0,47	1,23	4,94	1,66	2,24	0,96	0,89	2,44	0,44	1,47
P15	Not Celiac	1,13	2,39	1,28	1,11	0,43	1,03	1,41	1,45	3,47	1,07	0,87	1,10	2,77	1,36	1,68
P16	Not Celiac	0,75	0,69	1,16	0,83	0,57	0,70	0,76	0,52	1,21	1,07	0,63	0,41	2,77	0,31	0,03
P17	Not Celiac	0,22	1,20	0,40	0,23	0,93	0,78	0,61	0,57	1,15	0,24	0,75	1,05	2,42	5,15	7,82
P18	Not Celiac	0,84	1,01	2,77	0,50	1,71	1,21	1,48	0,40	1,81	0,30	0,31	0,63	2,93	8,55	1,14
P19	Not Celiac	1,80	1,09	0,97	1,05	1,63	1,03	1,56	0,67	2,01	0,86	0,60	2,52	0,60	0,54	11,97
P20	Not Celiac	0,64	1,18	1,86	1,88	3,43	1,39	0,92	1,52	2,80	0,40	1,80	2,40	6,65	17,25	0,29
P21	Not Celiac	2,98	2,23	4,86	1,60	0,91	5,56	1,55	0,84	2,64	0,70	1,15	0,72	2,77	10,30	13,26
P22	Not Celiac	1,13	1,10	0,99	0,42	0,62	0,40	0,96	0,54	0,57	1,07	1,82	0,93	2,77	0,99	0,07

ID	Status	REL T1	REL T2	REL T3	TNFRSF14 T1	TNFRSF14 T2	TNFRSF14 T3	TNFSF14 T1	TNFSF14 T2	TNFSF14 T3	TNFAIP3 T1	TNFAIP3 T2	TNFAIP3 T3
P1	Celiac	1,14	1,09	1,22	1,40	1,48	0,92	0,66	0,57	1,04	1,13	1,09	5,05
P2	Celiac	1,50	0,65	0,76	1,81	1,62	1,46	0,76	0,19	0,38	0,38	4,39	1,11
P3	Celiac	1,30	0,56	1,29	1,01	1,73	1,92	0,20	0,51	0,18	0,97	0,16	1,76
P4	Celiac	1,84	0,91	1,43	0,58	0,76	0,60	0,55	2,61	1,22	0,45	1,41	1,72
P5	Celiac	0,59	1,59	1,10	0,67	2,26	1,15	0,71	0,94	0,85	1,18	0,82	1,99
P6	Celiac	0,20	1,49	0,92	0,66	1,01	0,79	0,92	0,51	0,53	2,29	0,39	1,72
P7	Celiac	1,24	1,06	1,10	5,67	2,34	1,15	0,55	0,89	0,85	2,86	0,64	1,99
P8	Celiac	1,09	5,09	0,97	1,58	0,25	1,17	0,55	0,89	1,79	1,30	1,75	0,60
P9	Celiac	0,89	1,33	1,10	0,86	1,63	1,15	0,02	0,89	0,85	1,13	0,94	1,99
P10	Not Celiac	4,61	0,91	1,04	0,81	1,84	1,03	1,14	0,45	1,33	3,15	1,56	1,89
P11	Not Celiac	1,31	1,00	0,93	0,97	1,27	1,19	0,87	0,15	2,12	0,73	0,62	1,78
P12	Not Celiac	1,35	0,69	1,64	0,98	0,91	0,16	0,79	2,74	0,24	1,69	1,10	1,40
P13	Not Celiac	1,75	0,57	0,46	1,31	0,34	1,35	0,17	1,69	3,46	0,70	0,89	0,29
P14	Not Celiac	1,18	0,53	0,67	1,59	1,42	0,25	0,45	5,02	0,30	1,06	0,53	1,31
P15	Not Celiac	1,51	1,59	1,08	0,98	1,32	1,71	0,98	1,42	1,03	0,36	0,99	1,31
P16	Not Celiac	0,38	0,92	0,53	0,47	0,33	0,74	0,98	0,04	1,03	1,68	0,20	0,19
P17	Not Celiac	0,24	2,19	2,54	0,34	0,96	0,81	0,35	0,57	1,67	0,55	2,91	1,80
P18	Not Celiac	1,44	1,44	0,65	0,61	0,33	0,65	0,58	0,96	0,72	1,17	2,76	5,32
P19	Not Celiac	1,11	0,54	1,48	0,98	0,75	1,38	0,98	0,43	1,37	2,02	0,31	1,94
P20	Not Celiac	0,77	4,12	0,56	1,41	0,82	1,03	0,98	1,00	0,36	6,50	2,62	1,10
P21	Not Celiac	0,41	0,48	0,98	1,30	0,96	2,32	0,98	0,96	2,76	2,28	1,53	6,04
P22	Not Celiac	1,51	1,16	0,96	0,98	1,21	0,79	0,98	0,46	0,86	0,10	0,69	0,16

**Supplementary Figure 1: mRNA expression of candidate genes in PBMC at CD diagnosis (Time2).** SH2B3 and TNFSF14 expression was higher in 9 cases than in 13 controls, with a differences of RQ level of 0.5 and 0.6 fold change respectively.

