

Supplementary Table 1

Name	Oligonucleotide sequence
DSbl_001	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACACGTACGTACGTANNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_002	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACCGTACGTACGTANNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_003	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACGTACGTACGTACNNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_004	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACTACGTACGTACGNNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_005	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACACGTACGTACGTANNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_006	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACCGTAGTACGTACNNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_007	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACGTACTACGTACGNNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_008	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACTACGACGTACGTNNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_009	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACACGTGTACGTACNNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_010	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACCGTATACGTACGNNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_011	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACGTACACGTACGTNNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
DSbl_012	TTTTTTTAAGCAGTGGTATCAACGCAGAGTACTACGCGTACGTANNNNNNNNNTTTTTTTTTTTTTTTTTT TTTTTTTTT
TSO	AAGCAGTGGTATCAACGCAGAGTGAATrGrGrG
SMART PCR primer	AAGCAGTGGTATCAACGCAGAGT
P5 SMART primer	AATGATACGGCGACCACCGAGATCTACACGCCTGTCCGCGGAAGCAGTGGTATCAACGCAGAGT*A*C
Sequencing read 1	GCCTGTCCGCGGAAGCAGTGGTATCAACGCAGAGTAC

Supplementary Table 2

Donor #	Cohort	Age	Gender	HLA-DQ2	HLA-DQ8	Year of Celiac Disease Diagnosis
1	Gluten free	50	Female	NEGATIVE	POSITIVE	2005
2	Gluten free	42	Male	POSITIVE	NEGATIVE	2008
3	Gluten free	30	Male	POSITIVE	NEGATIVE	2003
4	Gluten free	43	Female	POSITIVE	NEGATIVE	2011
5	Gluten free	61	Male	POSITIVE	NEGATIVE	2015
6	Gluten free	59	Female	POSITIVE	NEGATIVE	2014
7	Gluten free	71	Female	POSITIVE	POSITIVE	2014
8	Gluten free	28	Female	POSITIVE	NEGATIVE	2016
9	Gluten free	54	Female	POSITIVE	NEGATIVE	2005
10	Gluten free	38	Female	NEGATIVE	POSITIVE	2011
11	Non-Gluten Free	57	Male	POSITIVE	NEGATIVE	2016
14	Non-Gluten Free	52	Female	POSITIVE	NEGATIVE	2006
15	Non-Gluten free	50	Female	POSITIVE	NEGATIVE	2008
17	Non-Gluten Free	33	Female	POSITIVE	NEGATIVE	2012
18	Non-Gluten Free	34	Female	POSITIVE	POSITIVE	2015
19	Non-Gluten Free	64	Female	POSITIVE	NEGATIVE	2004
20	Non-Gluten Free	59	Male	POSITIVE	NEGATIVE	2014
21	Non-Gluten Free	44	Female	POSITIVE	NEGATIVE	2012
22	Non-Gluten Free	48	Female	POSITIVE	NEGATIVE	2014
23	Healthy	60	Male	POSITIVE	NEGATIVE	N/A
24	Healthy	45	Female	POSITIVE	NEGATIVE	N/A
25	Healthy	61	Male	NEGATIVE	NEGATIVE	N/A
26	Healthy	56	Male	NEGATIVE	POSITIVE	N/A
27	Healthy	24	Male	NEGATIVE	POSITIVE	N/A
28	Healthy	55	Female	NEGATIVE	NEGATIVE	N/A
29	Healthy	47	Female	POSITIVE	NEGATIVE	N/A
30	Healthy	37	Male	POSITIVE	NEGATIVE	N/A
31	Healthy	47	Male	POSITIVE	NEGATIVE	N/A
32	Healthy	39	Male	POSITIVE	NEGATIVE	N/A
33	Healthy	34	Male	POSITIVE	NEGATIVE	N/A
34	Healthy	33	Male	POSITIVE	NEGATIVE	N/A