

B-CELL LINE EXCHANGE #301

OCTOBER 5, 2022

B-cell Line 601 - 602

The results for B-cell Line Exchange #301 were summarized in Tables 1 - 2 and individual laboratory results reported for each sample were listed in Tables 3 - 6. We would like to acknowledge and thank **Welsh Blood Service, Pontyclun, Wales and Badger-Hawkeye Red Cross, Madison, WI** for providing the cells examined in this study.

We would like to also thank the labs performing NGS for sharing their findings and encourage other NGS labs to do so as well. Haplotype frequencies used in this report were from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

Ter-601. The reported HLA type for this cell from a Caucasian donor was as follows:

HLA-A	HLA-B	HLA-C
*02:01	*08:01 *40:01	*03:04 *07:01

DRB1	DRB3/4/5	DQA1	DQB1	DPA1	DPB1
*03:01 *04:04	B3*01:01 B4*01:03	*03:01 *05:01	*02:01 *03:02	*01:03	*02:01 *06:01

Likely associations present in this cell were A*02:01-B*08:01-DRB1*03:01-DQB1*02:01 and A*02:01-B*40:01-DRB1*04:04-DQB1*03:02, observed in Hispanics, with respective HF = 0.00919 and 0.00275.

This cell was BD, one of the reference cells for DRB3*01:01:03 (1). It was previously examined for class II as Ter 338 (2004). In this present retyping, DRB3*01:01 was assigned by 100% of labs reporting at high resolution. Among them, 6 labs (5 NGS + 1 SSO/SSB) assigned DRB3*01:01:03. For all remaining allele assignments, > 80% agreement was achieved.

References:

1. Guttridge MG, Hudson L, Williams H, Dunn P, Day S, Darke C. Identification and nucleotide sequence of two novel DRB3 alleles, DRB3*0102 and DRB3*010133. Tissue Antigens. 1997 Jun;49(6):665-7.

Ter-602. The reported HLA type for this cell from a Hispanic donor was as follows:

HLA-A	HLA-B	HLA-C
*01:01 *02:11	*41:01 *40:04	*17:01 *03:04

DRB1	DRB3/4/5	DQA1	DQB1	DPA1	DPB1
*15:01 *14:02	B5*01:01 B3*01:01	*01:02 *05:03	*06:02 *03:01	*01:03	*02:01 *04:02

From family studies and exchange data, the haplotypes present in this cell were found to be A*01:01-B*41:01-C*17:01-DRB1*15:01-DRB5*01:01-DQA1*01:02-DQB1*06:02-DPA1*01:03-DPB1*02:01 and A*02:11-B*40:04-C*03:04-DRB1*14:02-DRB3*01:01-DQA1*05:03-DQB1*03:01-DPA1*01:03-DPB1*04:02. The A*02:11-B*40:04-DRB1*14:02-DQB1*03:01 association present in this cell was observed exclusively in Hispanics, with HF = 0.00047.

This cell was previously examined for class I as extracts 560 (2012), 305 (2004), and 194 (2002). In this present retyping, B*40:04 was assigned by 100% of labs reporting at high resolution, compared to an 82% assignment level in 2002. Among the labs reporting at low resolution, 55% assigned B*40 and 45% assigned B*40(B60). Greater than 80% agreement was also achieved for all other allele assignments.



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Table 1: Summary of the 301st B-cell Line Exchange

Ter-601																								
DNA Typing - class II	<u>28 labs High; 22 labs low-DRB1</u>			%(n)	<u>22 labs High; 17 labs Low-DRB3/4/5</u>			%(n)	<u>21 labs High; 17 labs Low-DQA1</u>			%(n)	<u>28 labs High; 21 labs Low-DQB1</u>			%(n)	<u>17 labs High; 11 labs Low-DPA1</u>			%(n)	<u>27 labs High; 13 labs Low-DPB1</u>			%(n)
	DRB1*03:01:01			18(5)	DRB3*01:01:03			27(6)	DQA1*03:01:01			24(5)	DQB1*02:01:01			21(6)	DPA1*01:03:01			29(5)	DPB1*02:01:02			22(6)
	DRB1*03:01:01G			18(5)	DRB3*01:01:02G			5 (1)	DQA1*03:01:01G			5 (1)	DQB1*02:01:01G			18(5)	DPA1*01:03:01G			12(2)	DPB1*02:01:02G			15(4)
	DRB1*03:01P			11(3)	DRB3*01:01			68(15)	DQA1*03:01			71(15)	DQB1*02:01			57(16)	DPA1*01:03			59(10)	DPB1*02:01P			7 (2)
	DRB1*03:01			53(15)	DRB3*01			88(15)	DQA1*03			100(17)	DQB1*02:09			4 (1)	DPA1*01			100(11)	DPB1*02:01			56(15)
	DRB1*03(DR17)			45(10)	DRB3*PRESENT			12(2)					DQB1*02			100(21)					DPB1*02(DP201)			38(5)
	DRB1*03			55(12)																	DPB1*02			62(8)
DNA Typing - class I	<u>26 labs High; 22 labs low- A</u>			%(n)	<u>26 labs High; 22 labs low- B</u>			%(n)	<u>26 labs High; 21 labs low- C</u>			%(n)												
	A*02:01:01:01			4 (1)	B*08:01:01			31(8)	C*03:04:01:01			4 (1)												
	A*02:01:01			27(7)	B*08:01:01G			4 (1)	C*03:04:01			27(7)												
	A*02:01:01G			8 (2)	B*08:01P			8 (2)	C*03:04:01G			8 (2)												
	A*02:01P			4 (1)	B*08:01			57(15)	C*03:04P			4 (1)												
	A*02:01			57(15)	B*08			100(22)	C*03:04			57(15)												
	A*02			100(22)					C*03(Cw10)			43(9)												
									C*03			57(12)												
					<u>26 labs High; 22 labs low- B</u>			%(n)	<u>26 labs High; 21 labs low- C</u>			%(n)												
					B*40:01:02			31(8)	C*07:01:01:01			4 (1)												

Table 2: Summary of the 301st B-cell Line Exchange

Ter-602

DNA Typing - class II		DNA Typing - class I	
28 labs High; 22 labs low-DRB1	28 labs High; 22 labs low-DRB1	22 labs High; 16 labs Low-DRB3/4/5	21 labs High; 17 labs Low-DQA1
	DRB1*14:02:01	DRB3*01:01:02	DQA1*01:02:01
	DRB1*14:02:01G	DRB3*01:01:02G	DQA1*01:02:01G
	DRB1*14:02P	DRB3*01:01P	DQA1*01:02
	DRB1*14:02	DRB3*01:01	DQA1*01:01
	DRB1*14	DRB3*01	DQA1*01
	DRB1*13	DRB3*PRESENT	
28 labs High; 22 labs low-DRB1	28 labs High; 22 labs low-DRB1	22 labs High; 16 labs Low-DRB3/4/5	21 labs High; 17 labs Low-DQA1
	DRB1*15:01:01	DRB5*01:01:01	DQA1*05:03:01
	DRB1*15:01:01G	DRB5*01:01:01G	DQA1*05:01:01G
	DRB1*15:01P	DRB5*01:01	DQA1*05:03
	DRB1*15:01	DRB5*01	DQA1*05:01
	DRB1*15	DRB5*PRESENT	DQA1*05
	DRB1*03		
28 labs High; 20 labs Low-DQB1	28 labs High; 20 labs Low-DQB1	26 labs High; 22 labs low- B	26 labs High; 21 labs low- C
	DQB1*03:01:01	B*40:04:01	C*03:04:01:02
	DQB1*03:01:01G	B*40:04	C*03:04:01
	DQB1*03:01P	B*40(B61)	C*03:04:01G
	DQB1*03:01	B*40	C*03:04P
	DQB1*03		C*03:04
	DQB1*03(DQ7)		C*03(Cw10)
	DQB1*05		C*03
17 labs High; 11 labs Low-DPA1	17 labs High; 11 labs Low-DPA1	26 labs High; 22 labs low- B	26 labs High; 22 labs low- C
	DPA1*01:03:01	B*41:01:01:01	C*17:01:01:05
	DPA1*01:03:01G	B*41:01:01	C*17:01:01
	DPA1*01:03	B*41:01	C*17:01:01G
	DPA1*01	B*41	C*17:01P
			C*17:01
			C*17
26 labs High; 13 labs Low-DPB1	26 labs High; 13 labs Low-DPB1		
	DPB1*02:01:02		
	DPB1*02:01:02G		
	DPB1*02:01P		
	DPB1*02:01		
	DPB1*02(DP201)		
	DPB1*02		
26 labs High; 13 labs Low-DPB1	26 labs High; 13 labs Low-DPB1		
	DPB1*04:02:01		
	DPB1*04:02:01G		
	DPB1*04:02P		
	DPB1*04:02		
	DPB1*04(DP402)		
	DPB1*04		

Table 3a: Individual laboratory results for B-cell #601 - Class II

	Low resolution													
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
278	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*02	*06		
725	*03(DR17)	*04	3*01	4*01	*03	*05	*02	*03(DQ8)					SSO	
747	*03	*04	3*01	4*01	*03	*05	*02	*03	*01	*01	*02	*06	SSP SSO NGS	
771	*03	*04			*03	*05	*02	*03			*02	*06	SSO NGS	
792	*03(DR17)	*04	3*01	4*01	*03	*05	*02	*03(DQ8)	*01	*01	*02	*06	SSO NGS	
793	*03(DR17)	*04	3*01	4*PRESENT	*03	*05	*02	*03(DQ8)	*01	*01	*02(DP201)	*06	SSP	
794	*03	*04	3*01	4*01	*03	*05	*02	*03	*01		*02	*06	SSP SSO NGS	
2400	*03(DR17)	*04	3*01	4*01	*03	*05	*02	*03(DQ8)	NT	NT	*02	*06	RT-PCR	
2847	*03	*04											SSO NGS	
													SSO	
3519	*03(DR17)	*04	3*01	4*01	*03	*05	*02	*03(DQ8)	*01		*02(DP201)	*06	SSP NGS	
4079	*03(DR17)	*04	3*01	4*01	*03	*05	*02	*03(DQ8)	*01		*02(DP201)	*06	RT-PCR	
5130	*03	*04	3*01	4*01	*03	*05	*02	*03			*02	*06	SSO	
5214	*03(DR17)	*04	3*01	4*01	*03	*05	*02	*03(DQ8)	*01		*02(DP201)	*06	SSO NGS	
5219	*03	*04			*03	*05	*02	*03					SSO	
5462	*03	*04	3*01	4*01	*03	*05	*02	*03	*01		NT	NT	SSO NGS	
5488				4*01									RT-PCR	
5642	*03(DR17)	*04	3*PRESENT	4*PRESENT			*02	*03(DQ8)					SSO NGS	
6649	*03(DR17)	*04					*02	*03(DQ8)					SSP SSO	
8038	*03	*04	3*01	4*01	*03	*05	*02	*03	*01		*02	*06	SSO	
8043	*03	*04	3*01	4*01			*02	*03					SSO SBT	
8058	*03	*13	3*PRESENT	3*PRESENT	NT	NT	*02	*05	NT	NT	NT	NT	SSP SSO NGS	
8068	*03	*04			*03	*05	*02	*03					SSO	
8123	*03(DR17)	*04	3*01	4*01	*03	*05	*02	*03(DQ8)	*01	*01	*02(DP201)	*06	RT-PCR	

Table 3b: Individual laboratory results for B-cell #601 - Class II

	High resolution													
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03	*01:03	*02:01	*06:01	NGS	
278	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03	*01:03	*02:01	*06:01		
														DQB1*02:163N DQB1*03:289 DQB1*03:416 DPB1*352:01
747	*03:01:01	*04:04:01	3*01:01:03	4*01:03:01	*03:01:01	*05:01:01	*02:01:01	*03:02:01	*01:03:01	*01:03:01	*02:01:02	*06:01:01	SSP SSO NGS	
762	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*02:01	*06:01	RT-PCR	
771	*03:01	*04:04					*02:01	*03:02			*02:01	*06:01	SSO NGS	
792	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03	*01:03	*02:01	*06:01	SSO NGS	DRB1*03:147
793					*03:01	*05:01					*02:01	*06:01	SSP	
													SSP SSO NGS RT-PCR	
794	*03:01:01	*04:04:01	3*01:01:03	4*01:03	*03:01:01	*05:01:01	*02:01:01	*03:02:01	*01:03:01		*02:01:02	*06:01:01		
2344	*03:01:01G	*04:04:01G	NT	NT	NT	NT	*02:01:01G	*03:02:01G	NT	NT	*02:01:02G	*06:01:01G	NGS	
														DQB1*02:163N DQB1*03:289
2400	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	NT	NT	*02:01:02G	*06:01	SSO NGS	
3135	*03:01P	*04:04P	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*02:01	*06:01		
3511	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*02:01P	*06:01:01G	NGS	
													SSP NGS RT-PCR	
3519	*03:01P	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*02:01	*06:01		DRB1*03:147
														DRB1*03:15 DRB1*03:91 DRB1*03:104 DRB1*03:127 DRB1*03:135 DRB1*03:25 DRB1*03:42 DRB1*03:68N DRB1*03:69 DRB1*03:83 DRB1*03:86 DRB1*03:87
3753	*03:01:01G	*04:04:01G	3*01:01:02G	4*01:01:01G	*03:01:01G	*05:01:01G	*02:01:01G	*03:02:01G	*01:03:01G	*01:03:01G	*02:01:02G	*06:01:01G	SBT	
3966	*03:01	*04:04	3*01:01	4*01:03			*02:01	*03:02					SSP RT-PCR	
4251	*03:01:01G	*04:04:01G	3*01:01	4*01:01:01G	*03:01	*05:01	*02:01:01G	*03:02:01G	*01:03:01G	*01:03:01G	*02:01	*06:01	NGS	
4337	*03:01	*04:04					*02:01	*03:02			*02:01	*06:01	SSP SBT NGS	
5130	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02			*02:01	*06:01	SSO NGS	DRB1*03:147
5133	*03:01:01	*04:04:01	3*01:01:03	4*01:03:01	*03:01:01	*05:01:01	*02:01:01	*03:02:01	*01:03:01		*02:01:02	*06:01:01	NGS	
5219	*03:01:01	*04:04:01					*02:01:01	*03:02:01			*02:01:02	*06:01:01	SSO NGS	
5451	*03:01:01	*04:04:01	3*01:01:03	4*01:03:01	*03:01:01	*05:01:01	*02:01:01	*03:02:01	*01:03:01		*02:01:02	*06:01:01	NGS	
5488	*03:01:01G	*04:04:01	3*01:01:03		*03:01:01	*05:01:01	*02:01:01	*03:02:01	*01:03:01		*02:01:02	*06:01:01	SSO NGS	
5642	*03:01	*04:04					*02:09	*03:02					SSP SSO	
8001	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*02:01	*06:01	NGS	
8021	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*02:01	*06:01	SSO NGS	
8029	*03:01:01G	*04:04:01G					*02:01:01G	*03:02:01G			*02:01:02G	*06:01:01G		

Table 3b: Individual laboratory results for B-cell #601 - Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
8038	*03:01P	*04:04P	3*01:01:03	4*01:01:01G	NT	NT	*02:01:01G	*03:02P	NT		*02:01P	*06:01:01	SSO SBT	DPB1*352:01:02 DPB1*914:01 DQB1*02:01:27 DQB1*03:02:09
8043	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02			*02:01	*06:01	SSP SSO NGS	
8122	*03:01	*04:04	3*01:01	4*01:03	*03:01	*05:01	*02:01	*03:02	*01:03		*02:01	*06:01	NGS	DPB1*914:01 DRB3*01:62 DPB1*352:01

Table 4: Individual laboratory results for B-cell #601 - Class I														
Low resolution							High resolution							
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C		METHOD	Other Alleles
230							*02:01	*02:01	*08:01	*40:01	*03:04	*04:04	NGS	
278	*02	*02	*08	*40	*03	*07	*02:01	*02:01	*08:01	*40:01	*03:04	*07:01		
725	*02		*08	*40(B60)	*03(Cw10)	*07							SSO	
747	*02	*02	*08	*40	*03	*07	*02:01:01	*02:01:01	*08:01:01	*40:01:02	*03:04:01	*07:01:01	SSP SSO NGS	
762							*02:01		*08:01	*40:01	*03:04	*07:01	RT-PCR	
771	*02		*08	*40	*03	*07	*02:01		*08:01	*40:01	*03:04	*07:01	SSO NGS	
792	*02	*02	*08	*40(B60)	*03(Cw10)	*07	*02:01	*02:01	*08:01	*40:01	*03:04	*07:01	SSO NGS	A*02:01:01:02L
793	*02	*02	*08	*40(B60)	*03(Cw10)	*07							SSP	
													SSP SSO NGS	
794	*02		*08	*40	*03	*07	*02:01:01		*08:01:01	*40:01:02	*03:04:01	*07:01:01	RT-PCR	
2344							*02:01:01	*02:01:01	*08:01:01	*40:01:02	*03:04:01	*07:01:01	NGS	
2400	*02		*08	*40(B60)	*03(Cw10)	*07	*02:01		*08:01	*40:01	*03:04	*07:01	SSO NGS	
2847	*02		*08	*40	*03	*07							SSO	
3135							*02:01P		*08:01P	*40:01P	*03:04P	*07:01P		
3511							*02:01		*08:01	*40:01	*03:04	*07:01	NGS	
													SSP NGS	
3519	*02		*08	*40(B60)	*03(Cw10)	*07	*02:01		*08:01	*40:01	*03:04	*07:01	RT-PCR	
3753							*02:01:01G	*02:01:01G	*08:01:01G	*40:01:01G	*03:04:01G	*07:01:01G		SBT
3966	*02	*02	*08	*40	*03	*07							SSP RT-PCR	
4079	*02		*08	*40(B60)	*03(Cw10)	*07							SSO	
4251							*02:01	*02:01	*08:01	*40:01	*03:04	*07:01	NGS	
4337							*02:01	*02:01	*08:01	*40:01	*03:04	*07:01	SSP SBT NGS	
5130	*02	*02	*08	*40	*03	*07	*02:01	*02:01	*08:01	*40:01	*03:04	*07:01	SSO NGS	
5133							*02:01:01:01		*08:01:01	*40:01:02	*03:04:01:01	*07:01:01:01	NGS	
5214	*02		*08	*40(B60)	*03(Cw10)	*07							SSO	
5219	*02	*02	*08	*40	*03	*07	*02:01:01	*02:01:01	*08:01:01	*40:01:02	*03:04:01	*07:01:01	SSO NGS	
5451							*02:01:01		*08:01:01	*40:01:02	*03:04:01	*07:01:01	NGS	
5462	*02		*08	*40	*03	*07							RT-PCR	
5488							*02:01:01		*08:01:01	*40:01:02	*03:04:01	*07:01:01	SSO NGS	
5642	*02		*08	*40(B60)	*03(Cw10)	*07							SSP SSO	
6649	*02	*02	*08	*40(B60)									SSO	
8001							*02:01		*08:01	*40:01	*03:04	*07:01	NGS	
8021							*02:01		*08:01	*40:01	*03:04	*07:01	SSO NGS	
8029							*02:01:01	*02:01:01	*08:01:01	*40:01:02	*03:04:01	*07:01:01		
														A*02:01:135 B*08:207 C*07:848 C*07:877 C*03:04:82 B*40:450
8038	*02		*08	*40	*03	*07	*02:01:01G		*08:01P	*40:01P	*03:04:01G	*07:01:01G	SSO SBT	
8043	*02		*08	*40	*03	*07	*02:01		*08:01	*40:01	*03:04	*07:01	SSP SSO NGS	
8058	NT	NT	NT	NT	NT	NT								
8068	*02	*02	*08	*40	*03	*07							SSO	
8122							*02:01		*08:01	*40:01	*03:04	*07:01	NGS	
8123	*02	*02	*08	*40(B60)	*03(Cw10)	*07								

Table 5a: Individual laboratory results for B-cell #602 - Class II

	Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles	
278	*14	*15	3*01	5*01	*01	*05	*03	*06	*01	*01	*02	*04			
725	*14	*15	3*01	5*01	*01	*05	*03(DQ7)	*06					SSO		
747	*14	*15	3*01	5*01	*01	*05	*03	*06	*01	*01	*02	*04	SSP SSO NGS		
771	*14	*15			*01	*05	*03	*06			*02	*04	SSO NGS		
792	*14	*15	3*01	5*01	*01	*05	*03(DQ7)	*06	*01	*01	*02	*04(DP402)	SSO NGS		
793	*14	*15	3*01	5*PRESENT	*01	*05	*03(DQ7)	*06	*01	*01	*02(DP201)	*04(DP402)	SSP		
794	*14	*15	3*01	5*01	*01	*05	*03	*06	*01		*02	*04	SSP SSO NGS		
2400	*14	*15	3*01	5*01	*01	*05	*03(DQ7)	*06	NT	NT	*02	*04	RT-PCR		
2847	*14	*15											SSO		
													SSP NGS		
3519	*14	*15	3*01	5*01	*01	*05	*03(DQ7)	*06	*01		*02(DP201)	*04(DP402)	RT-PCR		
4079	*14	*15	3*01	5*01	*01	*05	*03(DQ7)	*06	*01		*02(DP201)	*04(DP402)	SSO		
5130	*14	*15	3*01	5*01	*01	*05	*03	*06			*02	*04	SSO NGS		
5214	*14	*15	3*01	5*01	*01	*05	*03(DQ7)	*06	*01		*02(DP201)	*04(DP402)	SSO		
5219	*14	*15			*01	*05	*03	*06					SSO NGS		
5462	*14	*15	3*01	5*01	*01	*05	*03	*06	*01		NT	NT	RT-PCR		
5488													SSO NGS		
5642	*14	*15	3*PRESENT	5*PRESENT			*03(DQ7)	*06					SSP SSO		
6649	*14	*15					*03(DQ7)	*06					SSO		
8038	*14	*15	3*01	5*01	*01	*05	*03	*06	*01		*02	*04	SSO SBT		
8043	*14	*15											SSP SSO NGS		
8058	*13	*03	3*PRESENT	5*PRESENT	NT	NT	*05	*06	NT	NT	NT	NT			
8068	*14	*15			*01	*05	*03	*06					SSO		
8123	*14	*15	3*01	5*01	*01	*05	*03(DQ7)	*06	*01	*01	*02(DP201)	*04(DP402)	RT-PCR		

Table 5b: Individual laboratory results for B-cell #602 - Class II

	High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles	
230	*14:02	*15:01	3*01:01	5*01:01	*01:01	*05:01	*03:01	*06:02	*01:03	*01:03	*02:01	*04:02	NGS		
278	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03	*01:03	*02:01	*04:02			
747	*14:02:01	*15:01:01	3*01:01:02	5*01:01:01	*01:02:01	*05:03:01	*03:01	*06:02	*01:03:01	*01:03:01	*02:01:02	*04:02:01	SSP SSO NGS	DQB1*03:276N DPB1*105:01 DPB1*416:01	
762	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03		*02:01	*04:02	RT-PCR		
771	*14:02	*15:01					*03:01	*06:02			*02:01	*04:02	SSO NGS		
792	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03	*01:03	*02:01	*04:02	SSO NGS	DQB1*03:358N DPB1*416:01 DPB1*105:01	
793					*01:02	*05:03					*02:01	*04:02	SSP		
794	*14:02:01	*15:01:01	3*01:01	5*01:01:01	*01:02:01	*05:03:01	*03:01:01	*06:02:01	*01:03:01		*02:01	*04:02	SSP SSO NGS RT-PCR	DPB1*105:01 DPB1*416:01	
2344	*14:02:01G	*15:01:01G	NT	NT	NT	NT	*03:01:01G	*06:02:01G	NT	NT	*02:01:02G	*04:02:01G	NGS		
2400	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	NT	NT	*02:01:02G	*04:02:01G	SSO NGS	DQB1*03:276N	
3135	*14:02:01	*15:01P	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03		*02:01	*04:02			
3511	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03		*02:01P	*04:02P	NGS		
3519	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03		*02:01	*04:02	SSP NGS RT-PCR	DPB1*105:01	
3753	*14:02:01G	*15:01:01G	3*01:01:02G	5*01:01:01G	*01:02:01G	*05:01:01G	*03:01:01G	*06:02:01G	*01:03:01G	*01:03:01G	*02:01:02G	*04:02:01G	SBT	DRB1*14:46 DRB1*15:69 DRB1*15:113N DRB1*15:86 DRB1*15:110 DQB1*03:389	
3966	*14:02	*15:01	3*01:01	5*01:01			*03:01	*06:02					SSP RT-PCR		
4251	*14:02	*15:01:01G	3*01:01:02G	5*01:01:01G	*01:02	*05:03	*03:01:01G	*06:02:01G	*01:03:01G	*01:03:01G	*02:01:02G	*04:02:01G	NGS		
4337	*14:02	*15:01					*03:01	*06:02			*02:01	*04:02	SSP SBT NGS		
5130	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02			*02:01	*04:02	SSO NGS	DPB1*105:01 DPB1*416:01 DQB1*03:358N	
5133	*14:02:01	*15:01:01	3*01:01:02	5*01:01:01	*01:02:01	*05:03:01	*03:01:01	*06:02:01	*01:03:01		*02:01:02	*04:02:01	NGS	DPB1*416:01:01 DPB1*105:01:01	
5219	*14:02:01	*15:01:01					*03:01:01	*06:02:01			*02:01:02	*04:02:01	SSO NGS		
5451	*14:02:01	*15:01:01	3*01:01:02	5*01:01:01	*01:02:01	*05:03:01	*03:01P	*06:02:01	*01:03:01		*02:01P	*04:02P	NGS		
5488	*14:02:01	*15:01:01	3*01:01:02	5*01:01:01	*01:02:01	*05:03:01	*03:01:01G	*06:02:01	*01:03:01		*02:01:02G	*04:02:01G	SSO NGS		
5642	*14:02	*15:01					*03:01	*06:02					SSP SSO		
8001	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03		*02:01	*04:02	NGS	DRB3*01:62 DQB1*03:276N DPB1*105:01 DPB1*416:01	
8021	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03		*02:01	*04:02	SSO NGS		
8029	*14:02:01	*15:01:01G					*03:01:01G	*06:02:01G			*02:01:02G	*04:02:01G			

Table 5b: Individual laboratory results for B-cell #602 - Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
8038	*14:02P	*15:01:01G	3*01:01P	5*01:01:01G	NT	NT	*03:01:01G	*06:02:01G	NT		*02:01P	*04:02P	SSO SBT	DPB1*105:01:01 DPB1*416:01:01 DPB1*1072:01 DPB1*665:01
8043	*14:02	*15:01	3*01:01:02	5*01:01:01	*01:02	*05:03	*03:01	*06:02					SSP SSO NGS	
8122	*14:02	*15:01	3*01:01	5*01:01	*01:02	*05:03	*03:01	*06:02	*01:03		*02:01	*04:02	NGS	DRB3*01:62 DPB1*105:01 DPB1*665:01 DPB1*1072:01 DPB1*416:01

Table 6: Individual laboratory results for B-cell #602 - Class I

Low resolution							High resolution							
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C		METHOD	Other Alleles
230							*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	NGS	
278	*01	*02	*40	*41	*03	*17	*01:01	*02:11	*40:04	*41:01	*03:04	*17:01		
725	*01	*02	*40(B61)	*41	*03(Cw10)	*17							SSO	
747	*01	*02	*40	*41	*03	*17	*01:01:01	*02:11:01	*40:04:01	*41:01:01	*03:04:01	*17:01:01	SSP SSO NGS	
762							*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	RT-PCR	
771	*01	*02	*40	*41	*03	*17	*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	SSO NGS	
792	*01	*02	*40(B61)	*41	*03(Cw10)	*17	*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	SSO NGS	
793	*01	*02	*40(B61)	*41	*03(Cw10)	*17							SSP	
													SSP SSO NGS	
794	*01	*02	*40	*41	*03	*17	*01:01:01	*02:11:01	*40:04:01	*41:01:01	*03:04:01	*17:01:01	RT-PCR	
2344							*01:01:01	*02:11:01	*40:04:01	*41:01:01	*03:04:01	*17:01:01	NGS	
2400	*01	*02	*40(B61)	*41	*03(Cw10)	*17	*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	SSO NGS	
2847	*01	*02	*40	*41	*03	*17							SSO	
3135							*01:01P	*02:11:01	*40:04:01	*41:01:01	*03:04P	*17:01P		
3511							*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	NGS	
													SSP NGS	
3519	*01	*02	*40(B61)	*41	*03(Cw10)	*17	*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	RT-PCR	
3753							*01:01:01G	*02:11	*40:04	*41:01	*03:04:01G	*17:01:01G	SBT	B*40:64 B*41:07
3966	*01	*02	*40	*41	*03	*17							SSP RT-PCR	
4079	*01	*02	*40(B61)	*41	*03(Cw10)	*17							SSO	
4251							*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	NGS	
4337							*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	SSP SBT NGS	
5130	*01	*02	*40	*41	*03	*17	*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	SSO NGS	
5133							*01:01:01:01	*02:11:01:01	*40:04:01	*41:01:01	*03:04:01:02	*17:01:01:05	NGS	
5214	*01	*02	*40(B61)	*41	*03(Cw10)	*17							SSO	
5219	*01	*02	*40	*41	*03	*17	*01:01:01	*02:11:01	*40:04:01	*41:01:01	*03:04:01	*17:01:01	SSO NGS	
5451							*01:01:01	*02:11:01	*40:04:01	*41:01:01	*03:04:01	*17:01:01	NGS	
5462	*01	*02	*40	*41	*03	*17							RT-PCR	
5488							*01:01:01	*02:11:01	*40:04:01	*41:01:01	*03:04:01	*17:01:01	SSO NGS	
5642	*01	*02	*40(B61)	*41	*03(Cw10)	*17							SSP SSO	
6649	*01	*02	*40(B61)	*41									SSO	
8001							*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	NGS	
8021							*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	SSO NGS	
8029							*01:01:01	*02:11:01:01	*40:04:01	*41:01:01:01	*03:04:01	*17:01:01:05		
8038	*01	*02	*40	*41	*03	*17	*01:01:01G	*02:11:01	*40:04:01	*41:01	*03:04:01G	*17:01P	SSO SBT	C*03:04:82
8043	*01	*02	*40	*41	*03	*17	*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	SSP SSO NGS	
8058	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT		
8068	*01	*02	*40	*41	*03	*17							SSO	
8122							*01:01	*02:11	*40:04	*41:01	*03:04	*17:01	NGS	
8123	*01	*02	*40(B61)	*41	*03(Cw10)	*17							RT-PCR	