

B-CELL LINE EXCHANGE #276

B-cell Lines 551-552

JUNE 29, 2018

The results for B-cell Line Exchange #276 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 8. We would like to express our appreciation to **Leiden University Medical Centre, Leiden and to Welsh Blood Service, Pontyclun Wales** for providing us with the valuable reference cells examined in our studies.

We would also like to acknowledge and thank the labs performing NGS typing for sharing their results and encourage other NGS labs to share their findings. The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

Ter-551. The consensus type for this sample from a donor of unknown ethnicity is DRB1*07:01-DRB1*13:11-DRB3*02:02-DRB4*01:01-DQA1*02:01-DQA1*05:05-DQB1*02:02-DQB1*03:01-DPA1*01:03-DPB1*02:01-DPB1*03:01/A*24:02-A*32:01-B*14:01-B*18:01-C*07:01-C*08:02. One likely association present in this cell is DRB1*07:01-DRB4*01:01-DQA1*02:01-DQB1*02:02, observed in the workshop cell IHW9428 (same Ter 518, Ter 386, and Ter 316). DRB1*13:11-DRB3*02:02-DQA1*05:05-DQB1*03:01 is the other likely association present. The association of DRB1*13:11 with DQB1*03:01, is observed in Caucasians and Hispanics, with respective frequencies of 0.00006 and 0.00046.

This cell is 1083933x, a DRB1*13:11:01 reference cell. It was examined previously in the B-cell line Exchange as Ter 396 (2007) and Ter 321 (2003) and in the International HLA DNA Exchange as DNA #501 (2006). We congratulate Rao for correctly identifying this sample as being previously typed. In this present study, DRB1*13:11 was reported by 100% of labs, with 12 labs reporting DRB1*13:11:01. DRB1*07:01 (100%) was assigned as the second DRB1 type, with 9 labs reporting DRB1*07:01:01. DRB3*02:02 and DRB4*01:01 were also assigned in complete consensus, with DRB3*02:02:01 and DRB4*01:01:01 each assigned by 7 labs. Class I types were reported as A*24:02, A*32:01, B*14:01, B*18:01, C*07:01, and C*08:02. Each were reported in complete consensus, with 9 labs assigning B*14:01:01, B*18:01:01, C*07:01:01, and C*08:02:01, and 8 labs assigning A*24:02:01 and A*32:01:01.

Ter-552. The consensus type for this sample from a donor of unknown ethnicity is DRB1*13:10-DRB1*14:05-DRB3*01:01-DRB3*02:02-DQA1*01:03-DQA1*01:04-DQB1*05:03-DQB1*06:03-DPA1*01:03-DPB1*02:01/A*03:01-A*11:01-B*40:06-B*55:01-C*01:02-C*12:02. This cell is the sibling of ARA, a reference cell for DRB1*13:10 (1). Combining family studies and data from previous exchanges, the haplotypes in this cell are determined to be A*11:01-B*40:06-C*12:02-DRB1*13:10-DRB3*01:01-DQA1*01:03-DQB1*06:03-DPA1*01:03-DPB1*02:01 and A*03:01-B*55:01-C*01:02-DRB1*14:05-DRB3*02:02-DQA1*01:04-DQB1*05:03-DPA1*01:03-DPB1*02:01.

This cell was typed previously as Ter 343 (2004) and Ter 220 (1998). In this present study, DRB1*13:10 was reported by 97% of labs reporting at high resolution. DRB1*14:05 (100%) was assigned as the second DRB1 typed, with 11 labs assigning DRB1*14:05:01. Two subtypes of DRB3 were reported in this cell, DRB3*01:01 (100%) and DRB3*02:02 (100%). DRB3*01:01:02 and DRB3*02:02:01 were each assigned by 7 labs. Class I types for this cell were reported as A*03:01, A*11:01, B*40:06, B*55:01, C*01:02, and C*12:02. All but A*03:01 (96%) were assigned in complete consensus. A*03:01:01, A*11:01:01, and B*55:01:01 were each assigned by 8 labs. B*40:06:01, C*01:02:01, and C*12:02:02 were each assigned by 9 labs.

References:

1. Anholts JD, Verduyn W, Parlevliet A, et al. Irregular polymerase chain reaction-sequence-specific oligonucleotide hybridization patterns reveal seven new HLA-DRB1 alleles related to DR2, DR3, DR6, DR8, and DR11. Implications for sequence-specific priming. Hum Immunol 1995;42:15-22.

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Table 2: Summary of the 276th B-cell Line Exchange

Ter-552

DNA Typing - class II		<u>35 labs High; 32 labs low-DRB1</u>		<u>22 labs High; 24 labs Low-DRB3/4/5</u>		<u>25 labs High; 27 labs Low-DQA1</u>		<u>35 High Labs; 30 labs Low-QB1</u>		<u>19 High Labs; 14 labs Low-DPA1</u>		<u>30 High Labs; 19 labs Low-DPB1</u>			
			%(n)		%(n)		%(n)		%(n)		%(n)		%(n)		
DNA Typing - class II		DRB1*13:10	97(34)	DRB3*01:01:02:01	5 (1)	DQA1*01:03:01:02	8 (2)	DQB1*05:03:01:02	6 (2)	DPA1*01:03:01:01	21(4)	DPB1*02:01:02	30(9)		
		DRB1*13:06	3 (1)	DRB3*01:01:02	27(6)	DQA1*01:03:01	20(5)	DQB1*05:03:01	20(7)	DPA1*01:03:01	11(2)	DPB1*02:01:02G	3 (1)		
		DRB1*13	100(32)	DRB3*01:01P	5 (1)	DQA1*01:03	72(18)	DQB1*05:03:01G	6 (2)	DPA1*01:03:01G	5 (1)	DPB1*02:01	67(20)		
				DRB3*01:01	63(14)	DQA1*01	100(27)	DQB1*05:03P	3 (1)	DPA1*01:03P	5 (1)	DPB1*02(DP201)	42(8)		
				DRB3*01	79(19)			DQB1*05:03	65(23)	DPA1*01:03	58(11)	DPB1*02	58(11)		
				DRB3*PRESENT	21(5)			DQB1*05	100(30)	DPA1*01	100(14)				
		DNA Typing - class I		<u>36 labs High; 32 labs low-DRB1</u>		<u>22 labs High; 22 labs Low-DRB3/4/5</u>		<u>25 labs High-DQA1</u>		<u>35 High Labs; 30 labs Low-QB1</u>					
					%(n)		%(n)		%(n)		%(n)				
				DRB1*14:05:01	30(11)	DRB3*02:02:01:01	14(3)	DQA1*01:04:01:01	8 (2)	DQB1*06:03:01:01	3 (1)				
				DRB1*14:05:02	3 (1)	DRB3*02:02:01	18(4)	DQA1*01:04:01:02	4 (1)	DQB1*06:03:01	25(9)				
				DRB1*14:05	67(24)	DRB3*02:02P	4 (1)	DQA1*01:04:01	16(4)	DQB1*06:03:01G	6 (2)				
				DRB1*14	100(32)	DRB3*02:02	64(14)	DQA1*01:01P	4 (1)	DQB1*06:03	63(22)				
						DRB3*02	86(19)	DQA1*01:04	68(17)	DQB1*06:08	3 (1)				
				DRB3*PRESENT	14(3)			DQB1*06	100(30)						
DNA Typing - class I				<u>23 labs High; 25 labs low- A</u>		<u>24 labs High; 25 labs low- B</u>		<u>23 labs High; 25 labs low- C</u>							
			%(n)		%(n)		%(n)								
		A*03:01:01:01	17(4)	B*40:06:01:02	21(5)	C*01:02:01:01	4 (1)								
		A*03:01:01	17(4)	B*40:06:01	17(4)	C*01:02:01	35(8)								
		A*03:01	61(14)	B*40:06	62(15)	C*01:02:01G	4 (1)								
		A*03:21N	4 (1)	B*40(B61)	4 (1)	C*01:02P	4 (1)								
		A*03	100(25)	B*40	96(24)	C*01:02	52(12)								
						C*01	100(25)								
		DNA Typing - class I		<u>23 labs High; 25 labs low- A</u>		<u>23 labs High; 25 labs low- B</u>		<u>23 labs High; 25 labs low- C</u>							
					%(n)		%(n)		%(n)						
				A*11:01:01:01	17(4)	B*55:01:01	35(8)	C*12:02:02:01	13(3)						
				A*11:01:01	17(4)	B*55:01:01G	4 (1)	C*12:02:02	26(6)						
				A*11:01:01G	4 (1)	B*55:01P	4 (1)	C*12:02	61(14)						
A*11:01P	4 (1)			B*55:01	57(13)	C*12	100(25)								
A*11:01	57(13)			B*55	100(25)										
A*11	100(25)														

Table 3a: Individual laboratory results for B-cell #551-Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
87	*07	*13	3*02	4*01	*02	*05	*02	*03	*01	*01	*02(DP201)	*03	RT-PCR	DPB1*104
206	*07	*13	3*02	4*01	*02	*05	*02	*03	*01	*01	*02	*03		
278	*07	*13	3*02	4*01	*02	*05	*02	*03	*01	*01	*02	*03		
725	*07	*13	3*PRESENT	4*PRESENT	*02	*05	*02	*03					SSP SSO	
731	*07	*13			*02	*05	*02	*03					SSP SSO SBT	
735	*07	*13	3*02	4*01	*02	*05	*02	*03	*01	*01	*02(DP201)	*03	SSP SSO SBT	
747	*07	*13	3*02	4*01	*02	*05	*02	*03	*01	*01	*02	*03	SSP SSO NGS	
771	*07	*13			*02	*05	*02	*03					SSP SSO	
774	*07	*13	3*02	4*01	*02	*05	*02	*03			*02(DP201)	*03	SSP SSO	
779	*07	*13	3*02	4*01	*02	*05	*02	*03	*01		*02(DP201)	*03	SSP SSO	
792	*07	*13	3*02	4*01	*02	*05	*02	*03	*01	*01	*02	*03	SSO SBT	
793	*07	*13	3*02	4*01	*02	*05	*02	*03			*02(DP201)	*03	SSP	
794	*07	*13	3*02	4*01	*02	*05	*02	*03	*01		*02	*03	SSP SSO NGS	
2400	*07	*13	3*02	4*01	*02	*05	*02	*03			*02	*03	SSP SSO SBT	
2847	*07	*13											SSO	
3519	*07	*13			*02	*05	*02	*03	*01		*02(DP201)	*03	SSP NGS	
3632	*07	*13	3*02	4*01	*02	*05	*02	*03	*01		*02	*03	SSP SSO	
3966													SSP	
4079	*07	*13	3*02	4*01	*02	*05	*02	*03			*02	*03	SSP SSO	
4251	*07	*13	3*02	4*01	*02	*05	*02	*03	*01	*01	*02	*03	SSO NGS	
4492	*07	*13	3*PRESENT	4*PRESENT	*02	*05	*02	*03	*01		*02	*03	SSP SSO NGS	
5130	*07	*13	3*02	4*01	*02	*05	*02	*03			*02	*03	SSP SSO NGS	
5214	*07	*13	3*02	4*01	*02	*05	*02	*03 (DQ7)	*01	*01	*02(DP201)	*03	SSO	
5219	*07	*13			*02	*05	*02	*03					SSO	
5451	*07	*13	3*02	4*01	*02	*05	*02	*03					SSP SSO SBT	
5462	*07	*13	3*02	4*01	*02	*05	*02	*03	*01		*02(DP201)	*03	SSP SSO	
5642	*07	*13	3*PRESENT	4*PRESENT			*02	*03					SSP	
6649	*07	*13	3*PRESENT	4*PRESENT									SSO	
8001	*07	*13	3*PRESENT	4*PRESENT	*02	*05	*02	*03					SSP SSO	
8029	*07	*13			*02	*05	*02	*03					NGS	
8042	*07	*13					*02	*03						
8043	*07	*13			*02	*05	*02	*03					SSP SSO	
8068	*07	*13	3*02	4*01			*02	*03					SSO	

Table 3b: Individual laboratory results for B-cell #551-Class II

Center	High resolution												METHOD	Other Alleles
	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1			
230	*07:01	*13:11					*02:02	*03:01			*02:01	*03:01	SSO SBT	
278	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*03:01		
731	*07:01:01G	*13:11:01					*02:02:01	*03:01:01G					SSP SSO SBT	
735	*07:01P	*13:11	3*02:02:01G	4*01:01P	*02:01	*05:05	*02:01P	*03:01	*01:03P	*01:03P	*02:01	*03:01	SSP SSO SBT	DPA1*01:13
747	*07:01:01:01	*13:11:01	3*02:02:01	4*01:01:01	*02:01:01:01	*05:05:01:01	*02:02:01	*03:01:01	*01:03:01	*01:03:01:03	*02:01:02	*03:01:01	SSP SSO NGS	DPB1*124:01
762	*07:01:01:01	*13:11:01	3*02:02:01:02	4*01:01:01	*02:01:01	*05:05:01	*02:02:01	*03:01:01:03	*01:03:01:01	*01:03:01:03	*02:01:02	*03:01:01	SSP SSO NGS	
771	*07:01	*13:11					*02:02	*03:01					SSP SSO	
774	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01			*02:01	*03:01	SSP SSO	DQB1*03:93 DQB1*03:92 DRB1*07:31 DRB1*07:33 DQB1*03:73
779		*13:11			*02:01	*05:05	*02:02	*03:01	*01:03		*02:01	*03:01	SSP SSO	
792	*07:01	*13:11					*02:02	*03:01			*02:01	*03:01	SSO SBT	
793					*02:01	*05:05					*02:01	*03:01	SSP	
794	*07:01:01	*13:11:01	3*02:02:01	4*01:01:01	*02:01	*05:05	*02:02:01	*03:01:01	*01:03		*02:01:02	*03:01:01	SSP SSO NGS RT-PCR	
2344	*07:01:01:01	*13:11:01	3*02:02:01:02	4*01:01:01:01	*02:01:01:01	*05:05:01:01	*02:02:01	*03:01:01:03	*01:03:01:01	*01:03:01:03	*02:01:02	*03:01:01	NGS	DRB1*07:01:01:02 DQA1*05:05:01:02
2400	*07:01	*13:11			*02:01	*05:05	*02:02	*03:01			*02:01:02G	*03:01:01G	SSP SSO SBT	
3135	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*03:01		DQA1*05:09
3224	*07:01:01G	*13:11	NT	NT	*02:01	*05:05	*02:02	*03:01:01G	01:03:01G	*01:03:01G	*02:01	*03:01	SSP SBT	DPB1*640:01 DPB1*617:01
3511	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*03:01	SSP SSO	
3519	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*03:01	SSP NGS	DRB4*03:01N
3632	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01	*01:03		*02:01	*03:01	SSP SSO	
3753	*07:01:01	*13:11:01	3*02:02:01	4*01:01:01	*02:01:01	*05:05:01	*02:02:01	*03:01:01	*01:03:01	*01:03:01	*02:01:02	*03:01:01	NGS	
3966	*07:01	*13:11	3*02:02	4*01:01			*02:02	*03:01					SSP	
4079	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01			*02:01	*03:01	SSP SSO	
4251	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*03:01	SSO NGS	
4337	*07:01	*13:11					*02:02	*03:01			*02:01	*03:01	SBT NGS	
4492	*07:01:01	*13:11:01	3*02:02	4*01:01	*02:01:01	*05:05:01	*02:02:01	*03:01:01	*01:03	*01:03	*02:01:02	*03:01:01	SSP SSO NGS	DPA1*01:13
5130	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01			*02:01	*03:01	SSP SSO NGS	
5133	*07:01:01	*13:11:01	3*02:02:01	4*01:01:01:01	*02:01:01:01	*05:05:01:01	*02:02:01	*03:01:01:03	*01:03:01		*02:01:02	*03:01:01	NGS	
5451	*07:01:01	*13:11:01											SSP SSO SBT	

Table 3b: Individual laboratory results for B-cell #551-Class II

High resolution															
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles	
														DPB1*352:01 DPB1*414:01 DPB1*461:01 DPB1*617:01 DPB1*640:01 DPB1*104:01 DPB1*124:01 DPB1*678:01 DPB1*669:01 DPB1*675:01	
5462	NT	NT	NT	NT	NT	NT	NT	NT	NT			*02:01P	*03:01P	SSP SSO	
5488	*07:01:01	*13:11:01	3*02:02:01	4*01:01:01	*02:01:01	*05:05:01	*02:02:01	*03:01:01	*01:03:01			*02:01:02	*03:01:01	SSO NGS	
5642	*07:01	*13:11					*02:02	*03:01						SSP	
8001	*07:01	*13:11	3*02:02	4*01:01			*02:02	*03:01				*02:01	*03:01	SSP SSO	DPB1*104:01
8021	*07:01	*13:11	3*02:02	4*01:01	*02:01	*05:05	*02:02	*03:01	*01:03			*02:01	*03:01	SSO NGS	
8029	*07:01:01G	*13:11:01					*02:02:01	*03:01:01						NGS	
8043	*07:01	*13:11			*02:01	*05:05	*02:02	*03:01						SSP SSO	
8070	*07:01	*13:11					*02:02	*03:01						SBT	
8086	*07:01	*13:11			*02:01	*05:05	*02:02	*03:01	*01:03	*01:03		*02:01	*03:01	SSO SBT	
9916	*07:01	*13:11:01	3*02:02	4*01:01			*02:02	*03:01:01				*02:01:02	*03:01:01	SSP SBT	

Table 4: Individual laboratory results for B-cell #551-Class II

Serology										
CTR	DRB1		DRB3/4/5		DQB1		Others			
910	DR7	DR14	DR52	DR53			DQ2	DQ7		

Table 5: Individual laboratory results for B-cell #551-Class I

Low resolution							High resolution						METHOD	Other Alleles
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
87	*24	*32	*14	*18	*07	*08							RT-PCR	
206	*24	*32	*14	*18	*07	*08								
230							*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSO SBT	
278	*24	*32	*14	*18	*07	*08	*24:02	*32:37	*14:01	*18:01	*07:01	*08:02		
725	*24	*32	*14	*18	*07	*08							SSP SSO	
731	*24	*32	*14	*18	*07	*08							SSP SSO SBT	
735	*24	*32	*14	*18	*07	*08	*24:02P	*32:01P	*14:01	*18:01P	*07:01P	*08:02	SSP SSO SBT	
747	*24	*32	*14	*18	*07	*08	*24:02:01	*32:01:01:01	*14:01:01	*18:01:01	*07:01:01:01	*08:02:01:02	SSP SSO NGS	
774	*24	*32	*14	*18	*07	*08							SSP SSO	
779	*24	*32	*14	*18	*07	*08			*14:01				SSP SSO	
792	*24	*32	*14	*18	*07	*08	*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSO SBT	A*24:02:01:02L
793	*24	*32	*14	*18	*07	*08							SSP	
794	*24	*32	*14	*18	*07	*08	*24:02:01	*32:01:01	*14:01:01	*18:01:01	*07:01:01	*08:02:01	SSP SSO NGS	
2344							*24:02:01:01	*32:01:01:01	*14:01:01	*18:01:01:02	*07:01:01:01	*08:02:01:02	RT-PCR	
2400	*24	*32	*14	*18	*07	*08	*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	NGS	
2847	*24	*32	*14	*18	*07	*08							SSP SSO SBT	
3135							*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSO	C*07:06 C*07:18
3224							*24:02:01G	*32:01:01G	*14:01	*18:01:01G	*07:01:01G	*08:02	SSP SBT	
3511							*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSP SSO	
3519	*24	*32	*14	*18	*07	*08	*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSP NGS	
3753							*24:02:01	*32:01:01	*14:01:01	*18:01:01	*07:01:01	*08:02:01	NGS	
3966	*24	*32	*14	*18	*07	*08							SSP	
4079													SSP SSO	
4251	*24	*32	*14	*18	*07	*08	*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSO NGS	
4337							*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SBT NGS	
4492	*24	*32	*14	*18	*07	*08	*24:02:01:01	*32:01:01:01	*14:01:01:01	*18:01:01	*07:01:01	*08:02:01	SSP SSO NGS	
5130	*24	*32	*14	*18	*07	*08	*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSP SSO NGS	
5133							*24:02:01	*32:01:01:01	*14:01:01:01	*18:01:01	*07:01:01:16	*08:02:01:02	NGS	
5214	*24	*32	*14	*18	*07	*08							SSO	
5219	*24	*32	(B64)	*18	*07	*08							SSO	
5462	*24	*32	*14	*18	*07	*08	NT	NT	NT	NT	NT	NT	SSP SSO	
5488							*24:02:01	*32:01:01	*14:01:01	*18:01:01	*07:01:01	*08:02:01	SSO NGS	
8021							*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSO NGS	
8029	*24	*32	*14	*18			*24:02:01	*32:01:01	*14:01:01	*18:01:01	*07:01:01	*08:02:01	NGS	
8042	*24	*32	*14	*18	*07	*08								
8068	*24	*32	*14	*18	*07	*08							SSO	
8086							*24:02	*32:01	*14:01	*18:01	*07:01	*08:02	SSO SBT	
9916							*24:02	*32:01	*14:01:01:01	*18:01:01	*07:01:01	*08:02:01	SSP SBT	A*24:353

Table 6a: Individual laboratory results for B-cell #552-Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
87	*13	*14	3*01	3*02	*01	*01	*05	*06	*01	*01	*02(DP201)	*02(DP201)	RT-PCR	
206	*13	*14	3*01	3*02	*01	*01	*05	*06	*01	*01	*02			
278	*13	*14	3*01	3*02	*01	*01	*05	*06	*01	*01	*02	*02		
725	*13	*14	3*PRESENT		*01		*05	*06					SSP SSO	
731	*13	*14			*01	*01	*05	*06					SSP SSO SBT	
735	*13	*14	3*01	3*02	*01	*01	*05	*06	*01	*01	*02(DP201)	*02(DP201)	SSP SSO SBT	
747	*13	*14	3*01	3*02	*01	*01	*05	*06	*01	*01	*02	*02	SSP SSO NGS	
771	*13	*14			*01		*05	*06					SSP SSO	
774	*13	*14	3*01	3*02	*01	*01	*05	*06			*02(DP201)		SSP SSO	
779	*13	*14	3*01	3*02	*01	*01	*05	*06	*01		*02(DP201)		SSP SSO	
792	*13	*14	3*01	3*02	*01	*01	*05	*06	*01	*01	*02	*02	SSO SBT	
793	*13	*14	3*01	3*02	*01	*01	*05	*06			*02(DP201)		SSP	
794	*13	*14	3*01	3*02	*01		*05	*06	*01		*02		SSP SSO NGS RT-PCR	
2400	*13	*14	3*01	3*02	*01	*01	*05	*06			*02		SSP SSO SBT	
2847	*13	*14											SSO	
3519	*13	*14			*01		*05	*06	*01		*02(DP201)		SSP NGS	
3632	*13	*14	3*01	3*02	*01	*01	*05	*06	*01		*02		SSP SSO	
3966													SSP	
4079	*13	*14	3*01	3*02	*01	*01	*05	*06			*02	*02	SSP SSO	
4251	*13	*14	3*01	3*02	*01	*01	*05	*06	*01	*01	*02	*02	SSO NGS	
4492	*13	*14	3*PRESENT	3*PRESENT	*01		*05	*06	*01		*02		SSP SSO NGS	
5130	*13	*14	3*01	3*02	*01	*01	*05	*06			*02	*02	SSP SSO NGS	
5214	*13	*14	3*01	3*02	*01	*01	*05	*06	*01	*01	*02(DP201)		SSO	
5219	*13	*14			*01	*01	*05	*06					SSO	
5451	*13	*14	3*01	3*02	*01	*01	*05	*06					SSP SSO SBT	
5462	*13	*14	3*01	3*02	*01	*01	*05	*06	*01		*02(DP201)		SSP SSO	
5642	*13	*14	3*PRESENT				*05	*06					SSP	
6649	*13	*14	3*PRESENT	3*PRESENT									SSO	
8001	*13	*14	3*PRESENT	3*PRESENT	*01		*05	*06					SSP SSO	
8029	*13	*14			*01	*01	*05	*06					NGS	
8042	*13	*14					*05	*06						
8043	*13	*14			*01	*01	*05	*06					SSP SSO	
8068	*13	*14	3*01	3*02			*05	*06					SSO	

Table 6b: Individual laboratory results for B-cell #552-Class II

Center	High resolution												METHOD	Other Alleles
	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1			
230	*13:10	*14:05					*05:03	*06:03			*02:01	*02:01	SSO SBT	
278	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03	*01:03	*01:03	*02:01	*02:01		
731	*13:10	*14:05:01					*05:03:01G	*06:03:01G					SSP SSO SBT	DQB1*05:66 DQB1*06:28
735	*13:10	*14:05	3*01:01P	3*02:02P	*01:03	*01:01P	*05:03P	*06:03	*01:03P	*01:03P	*02:01	*02:01	SSP SSO SBT	DPA1*01:13
747	*13:10	*14:05:01	3*01:01:02	3*02:02:01:01	*01:03:01	*01:04:01:01	*05:03:01	*06:03:01	*01:03:01:01	*01:03:01:01	*02:01:02	*02:01:02	SSP SSO NGS	
762	*13:10	*14:05:02	3*01:01:02	3*02:02:01:01	*01:03:01	*01:04:01	*05:03:01:02	*06:03:01	*01:03:01:01		*02:01:02		SSP SSO NGS	
771	*13:10	*14:05					*05:03	*06:03					SSP SSO	
774	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03			*02:01		SSP SSO	DRB3*01:16 DRB3*01:17 DRB3*01:19 DRB3*02:28 DRB3*02:29N DRB3*02:31 DQB1*05:67 DQB1*06:154
779		*14:05			*01:03	*01:04	*05:03	*06:03	*01:03		*02:01		SSP SSO	
792	*13:10	*14:05					*05:03	*06:03			*02:01	*02:01	SSO SBT	
793					*01:03	*01:04					*02:01		SSP	
794	*13:10	*14:05:01	3*01:01:02	3*02:02:01	*01:03	*01:04	*05:03:01	*06:03:01	*01:03		*02:01:02		SSP SSO NGS RT-PCR	
2344	*13:10	*14:05:01	3*01:01:02:01	3*02:02:01:01	*01:03:01:02	*01:04:01:01	*05:03:01:02	*06:03:01	*01:03:01:01	*01:03:01:01	*02:01:02	*02:01:02	NGS	DRB3*01:01:02:02 DRB3*02:02:01:02 DQA1*01:04:01:02
2400	*13:10	*14:05			*01:03	*01:04	*05:03	*06:03			*02:01:02G		SSP SSO SBT	
3135	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03	*01:03	*01:03	*02:01	*02:01		DQA1*01:01 DQA1*01:05
3224	*13:06	*14:05	NT	NT	*01:03	*01:04	*05:03:01G	*06:03:01G	*01:03:01G	*01:03:01G	*02:01	*02:01	SSP SBT	DPB1*163:01 DPB1*297:01 DPB1*366:01 DPB1*367:01 DPB1*381:01 DPB1*444:01 DPB1*457:01 DPB1*469:01 DPB1*501:01 DPB1*502:01 DPB1*511:01 DPB1*528:01 DPB1*537:01 DPB1*551:01N DPB1*557:01
3511	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03	*01:03	*01:03	*02:01	*02:01	SSP SSO	
3519	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03	*01:03	*01:03	*02:01		SSP NGS	
3632	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03	*01:03		*02:01		SSP SSO	
3753	*13:10	*14:05:01	3*01:01:02	3*02:02:01	*01:03:01	*01:04:01	*05:03:01	*06:03:01	*01:03:01	*01:03:01	*02:01:02	*02:01:02	NGS	
3966	*13:10	*14:05	3*01:01	3*02:02			*05:03	*06:03					SSP	
4079	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03			*02:01	*02:01	SSP SSO	
4251	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03	*01:03	*01:03	*02:01	*02:01	SSO NGS	
4337	*13:10	*14:05					*05:03	*06:03			*02:01	*02:01	SBT NGS	
4492	*13:10	*14:05:01	3*01:01	3*02:02	*01:03:01	*01:04:01	*05:03:01	*06:03:01	*01:03	*01:03	*02:01:02	*02:01:02	SSP SSO NGS	DPA1*01:13
5130	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03			*02:01	*02:01	SSP SSO NGS	DRB1*13:170 DRB1*14:44
5133	*13:10	*14:05:01	3*01:01:02	3*02:02:01	*01:03:01:02	*01:04:01:02	*05:03:01	*06:03:01:01	*01:03:01:01		*02:01:02		NGS	
5451	*13:10	*14:05:01											SSP SSO SBT	

Table 6b: Individual laboratory results for B-cell #552-Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
														DPB1*678:01 DPB1*641:01 DPB1*681:01 DPB1*685:01 DPB1*692:01 DPB1*430:01 DPB1*432:01 DPB1*433:01 DPB1*441:01 DPB1*444:01 DPB1*452:01 DPB1*457:01 DPB1*467:01 DPB1*469:01 DPB1*501:01 DPB1*502:01 DPB1*510:01 DPB1*511:01 DPB1*513:01 DPB1*528:01 DPB1*537:01 DPB1*551:01N DPB1*557:01 DPB1*595:01+
5462	NT	NT	NT	NT	NT	NT	NT	NT	NT			*02:01	SSP SSO	
5488	*13:10	*14:05:01	3*01:01:02	3*02:02:01	*01:03:01	*01:04:01	*05:03:01	*06:03:01	*01:03:01			*02:01:02	SSO NGS	
5642	*13:10	*14:05					*05:03	*06:03					SSP	
8001	*13:10	*14:05	3*01:01	3*02:02			*05:03	*06:03				*02:01	SSP SSO	
8021	*13:10	*14:05	3*01:01	3*02:02	*01:03	*01:04	*05:03	*06:03	*01:03			*02:01	SSO NGS	
8029	*13:10	*14:05:01					*05:03:01	*06:03:01					NGS	
8043	*13:10	*14:05			*01:03	*01:04	*05:03	*06:03					SSP SSO	
8070	*13:10	*14:05					*05:03	*06:08					SBT	
8086	*13:10	*14:05			*01:03	*01:04	*05:03	*06:03	*01:03	*01:03	*02:01	*02:01	SSO SBT	
9916	*13:10	*14:05:01	3*01:01	3*02:02			*05:03	*06:03:01				*02:01:02	SSP SBT	

Table 7: Individual laboratory results for B-cell #552-Class II

Serology									
CTR	DRB1		DRB3/4/5		DQB1		Others		
910	DR18	DR14	DR52				DQ1	DQ4	DR9, DR53

Table 8: Individual laboratory results for B-cell #552-Class I

Center	Low resolution						High resolution						METHOD	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
87	*03	*11	*40	*55	*01	*12							RT-PCR	
206	*03	*11	*40	*55	*01	*12								
230							*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSO SBT	
278	*03	*11	*40	*55	*01	*12	*03:01	*11:01	*40:06	*55:01	*01:02	*12:02		
725	*03	*11	*40	*55	*01	*12							SSP SSO	
731	*03	*11	*40	*55	*01	*12							SSP SSO SBT	
735	*03	*11	*40	*55	*01	*12	*03:01	*11:01P	*40:06	*55:01P	*01:02P	*12:02	SSP SSO SBT	
747	*03	*11	*40	*55	*01	*12	*03:01:01:01	*11:01:01:01	*40:06:01:02	*55:01:01	*01:02:01	*12:02:02	SSP SSO NGS	
774	*03	*11	*40	*55	*01	*12							SSP SSO	
779	*03	*11	*40	*55	*01	*12			*40:06				SSP SSO	B*40:04
792	*03	*11	*40	*55	*01	*12	*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSO SBT	A*03:01:01:02N
793	*03	*11	*40	*55	*01	*12							SSP	
794	*03	*11	*40	*55	*01	*12	*03:01:01	*11:01:01	*40:06:01	*55:01:01	*01:02:01	*12:02:02	SSP SSO NGS	
2344							*03:01:01:01	*11:01:01:01	*40:06:01:02	*55:01:01	*01:02:01	*12:02:02:01	RT-PCR	
2400	*03	*11	*40	*55	*01	*12	*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	NGS	
2847	*03	*11	*40	*55	*01	*12							SSP SSO SBT	
3135							*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSO	
3224							*03:01	*11:01:01G	*40:06	*55:01:01G	*01:02:01G	*12:02	SSP SBT	
3511							*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSP SSO	
3519	*03	*11	*40	*55	*01	*12	*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSP NGS	
3753							*03:01:01	*11:01:01	*40:06:01	*55:01:01	*01:02:01	*12:02:02	SSP NGS	
3966	*03	*11	*40	*55	*01	*12							NGS	
4079													SSP	
4251	*03	*11	*40	*55	*01	*12	*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSP SSO	
4337							*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSO NGS	
4492	*03	*11	*40	*55	*01	*12	*03:01:01:01	*11:01:01:01	*40:06:01:02	*55:01:01	*01:02:01	*12:02:02:01	SBT NGS	
5130	*03	*11	*40	*55	*01	*12	*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSP SSO NGS	
5133							*03:01:01:01	*11:01:01:01	*40:06:01:02	*55:01:01	*01:02:01:01	*12:02:02:01	SSP SSO NGS	A*03:12 A*11:199
5214	*03	*11	*40 (B61)	*55	*01	*12							NGS	
5219	*03	*11	*40	*55	*01	*12							SSO	
5462	*03	*11	*40	*55	*01	*12	NT	NT	NT	NT	NT	NT	SSO	
5488							*03:01:01	*11:01:01	*40:06:01	*55:01:01	*01:02:01	*12:02:02	SSP SSO	
8021							*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSO NGS	
8029	*03	*11	*40	*55	*01	*12	03:21N	*11:01:01	*40:06:01	*55:01:01	*01:02:01	*12:02:02	SSO NGS	
8042	*03	*11	*40	*55	*01	*12							NGS	
8068	*03	*11	*40	*55	*01	*12							SSO	
8086							*03:01	*11:01	*40:06	*55:01	*01:02	*12:02	SSO SBT	
9916							*03:01:01	*11:01	*40:06:01:02	*55:01	*01:02:01	*12:02:02	SSP SBT	