

Report of the 318th B-cell line Exchange

OCTOBER 1, 2025

B-cell Lines 637- 639

The results for B-cell Line Exchange #318 are summarized in Tables 1 - 3 and individual laboratory results reported for each sample are listed in Tables 4 - 9. Haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://network.nmdp.org/services-support/bioinformatics-immunobiology/haplotype-frequencies>.

We would like to acknowledge and thank the labs performing NGS for sharing their findings and encourage other NGS labs to do so as well.

Ter-637. The consensus type for this cell from donor of Filipino descent is as follows:

HLA-A		HLA-B		HLA-C	
*24	*24:33	*35:05	*51:06	*04:01	*12:04

DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1	
*12:02	*12:02	*03:01	*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01

Likely associations present in this cell are B*51:06-C*12:04-DRB1*12:02-DQB1*05:02 and B*35:05-C*04:01-DRB1*12:02-DQB1*03:01. Each is exclusively observed in Asian populations, with respective HF = 0.00089 and 0.00528.

This cell is listed in the IMGT/HLA database as cell FH53. It was previously examined in the Workshops as IHW9441 and in the Exchange as extract 304 (2004) and extract 217 (2002). In this present retyping, 23 labs (88%) assigned A*24:07, 1 lab assigned A*24:02:01, 1 lab assigned A*24:02:01G, and 1 lab assigned A*24:02P. As consensus for A*24:07 was < 90%, it could not be graded. Good agreement (≥ 90%) was achieved for all other loci.

Ter-638. The consensus type for this cell is as follows:

HLA-A		HLA-B		HLA-C	
*01:01	*32:01	*08:01	*44:02	*05:01	*07:01

DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1	
*03:01	*13:06	*01:01	*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01	*03:01

No race information is available for this sample.

One likely association present in this cell is B*08:01-C*07:01-DRB1*03:01-DQB1*02:01. This is the most common association observed in Caucasians, with HF = 0.09821. The other likely association present is B*44:02-C*05:01-DRB1*13:06-DQB1*06:03. This same association was observed in DKMS-LSL_ID15972988, one of the reference cells for DRB1*13:06.

This sample is Ter331. It too is a reference cell for DRB1*13:06. It was examined several times in the Exchange as Ter 527 (2016), Ter 406 (2008), and Ter 331 (2004). In this present study, DRB1*13:06 was well assigned by 100% of lab reporting at high resolution. Good agreement (≥ 90%) was also achieved for all other loci.

Ter-639. The following is the reported consensus type for this cell from a Caucasian donor.

HLA-A		HLA-B		HLA-C	
*02:01	*32:01	*15:01	*15:01	*03:03	*03:03

DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1	
*04:01	*13:17	4*01:03	3*02:02	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01	*04:02

One likely association present in this cell is A*32:01-B*15:01-C*03:03-DRB1*04:01-DQB1*03:02. This rare association is exclusively observed in Caucasians, with HF = 0.00028. The other association present is likely A*32:01-B*15:01-C*03:03-DRB1*13:17-DQB1*04:02. The A*32:01-B*15:01-C*03:03 association in this cell is commonly observed in Caucasians, with HF = 0.01642.

The cell is R.B, the reference cell for DRB1*13:17. It was previously typed in the Exchange as Ter 528 (2016), Ter 405 (2008), and Ter 351 (2005). In this current study, DRB1*13:17 was reported by 100% of labs reporting at high resolution. Good agreement (≥ 90%) was also achieved for all other loci.



NEXT MAILING DATE: November 5, 2026

Arlene Locke, David Gjertson, Qiheng Zhang, and Elaine F. Reed



Table 1: Summary of the 318th B-cell Line Exchange

[illegible]

DNA Typing - class I	<u>26 labs High; 20 labs Low- A</u>		<u>26 labs High; 20 labs Low- B</u>		<u>26 labs High; 19 labs Low- C</u>	
		%(n)		%(n)		%(n)
	A*24:07:01:01	8 (2)	B*35:05:01:01	4 (1)	C*04:01:01:14	4 (1)
	A*24:07:01	23(6)	B*35:05:01	31(8)	C*04:01:01	31(8)
	A*24:02:01	4 (1)	B*35:05	65(17)	C*04:01P	4 (1)
	A*24:02:01G	4 (1)	B*35	100(20)	C*04:01	61(16)
	A*24:02P	4 (1)			C*04	100(19)
	A*24:07	57(15)				
	A*24	100(20)				
	<u>26 labs High- A</u>		<u>26 labs High; 20 labs Low- B</u>		<u>26 labs High; 18 labs Low- C</u>	
		%(n)		%(n)		%(n)
	A*24:33:01	27(7)	B*51:06:01:01	12(3)	C*12:04:02:01	8 (2)
	A*24:03:01G	4 (1)	B*51:06:01	37(7)	C*12:04:02	27(7)
	A*24:03P	4 (1)	B*51:06	61(16)	C*12:04:01	4 (1)
	A*24:33	57(15)	B*51	100(20)	C*12:04	61(16)
	A*24:387	8 (2)			C*12	100(19)

Table 2: Summary of the 318th B-cell Line Exchange

Ter-638													
DNA Typing - class II		<u>27 labs High; 19 labs Low-DRB1</u>	%(n)	<u>21 labs High; 11 labs Low-DRB3/4/5</u>	%(n)	<u>21 labs High; 17 labs Low-DQA1</u>	%(n)	<u>26 labs High; 18 labs Low-DQB1</u>	%(n)	<u>21 labs High; 10 labs Low-DPA1</u>	%(n)	<u>27 labs High; 9 labs Low-DPB1</u>	%(n)
		DRB1*03:01:01	22(6)	DRB3*01:01:02	14(3)	DQA1*01:03:01	29(6)	DQB1*02:01:01	23(6)	DPA1*01:03:01	24(5)	DPB1*01:01:01G	26(7)
		DRB1*03:01:01G	7 (2)	DRB3*01:01:02G	5 (1)	DQA1*01:03	71(15)	DQB1*02:01:01G	8 (2)	DPA1*01:03:01G	10(2)	DPB1*01:01:01	15(4)
		DRB1*03:01P	11(3)	DRB3*01:01P	14(3)	DQA1*01	100(17)	DQB1*02:01P	4 (1)	DPA1*01:03P	5 (1)	DPB1*01:01P	33(9)
		DRB1*03:01	59(16)	DRB3*01:01	67(14)			DQB1*02:01	65(17)	DPA1*01:03	62(13)	DPB1*01:01	26(7)
		DRB1*03(DR17)	37(7)	DRB3*01	100(11)			DQB1*02	100(18)	DPA1*01	100(10)	DPB1*01	100(9)
		DRB1*03	53(12)										
DNA Typing - class I		<u>27 labs High; 19 labs Low-DRB1</u>	%(n)	<td></td> <th><u>21 labs High; 17 labs Low-DQA1</u></th> <th>%(n)</th> <th><u>26 labs High; 18 labs Low-DQB1</u></th> <th>%(n)</th> <th><u>21 labs High; 10 labs Low-DPA1</u></th> <th>%(n)</th> <th><u>27 labs High; 9 labs Low-DPB1</u></th> <th>%(n)</th>		<u>21 labs High; 17 labs Low-DQA1</u>	%(n)	<u>26 labs High; 18 labs Low-DQB1</u>	%(n)	<u>21 labs High; 10 labs Low-DPA1</u>	%(n)	<u>27 labs High; 9 labs Low-DPB1</u>	%(n)
		DRB1*13:06	100(27)			DQA1*05:01:01	29(6)	DQB1*06:03:01	23(6)	DPA1*02:01:02	24(5)	DPB1*03:01:01	15(4)
		DRB1*13	100(19)			DQA1*05:01	71(15)	DQB1*06:03:01G	8 (2)	DPA1*02:01:02G	10(2)	DPB1*03:01:01G	22(6)
						DQA1*05	100(17)	DQB1*06:03P	4 (1)	DPA1*02:01P	4 (1)	DPB1*03:01P	33(9)
								DQB1*06:03	65(17)	DPA1*02:01	62(13)	DPB1*03:01	30(8)
								DQB1*06	100(18)	DPA1*02	100(10)	DPB1*03	100(9)

Table 3: Summary of the 318th B-cell Line Exchange

Ter-639																								
DNA Typing - class II	<u>26 labs High; 19 labs Low-DRB1</u>			%(n)	<u>21 labs High; 11 labs Low-DRB3/4/5</u>			%(n)	<u>21 labs High; 17 labs Low-DQA1</u>			%(n)	<u>26 labs High; 18 labs Low-DQB1</u>			%(n)	<u>21 labs High; 10 labs Low-DPA1</u>			%(n)	<u>26 labs High; 9 labs Low-DPB1</u>			%(n)
	DRB1*04:01:01			23(6)	DRB4*01:03:01			14(3)	DQA1*03:01:01			29(6)	DQB1*03:02:01			23(6)	DPA1*01:03:01			24(5)	DPB1*04:01:01			7 (2)
	DRB1*04:01:01G			8 (2)	DRB4*01:01P			19(4)	DQA1*03:01:01G			5 (1)	DQB1*03:02:01G			8 (2)	DPA1*01:03:01G			9(2)	DPB1*04:01:01G			23(6)
	DRB1*04:01P			4 (1)	DRB4*01:03			67(14)	DQA1*03:01			66(14)	DQB1*03:02P			4 (1)	DPA1*01:03P			5 (1)	DPB1*04:01P			35(9)
	DRB1*04:01			65(17)	DRB4*01			100(11)	DQA1*03			100(17)	DQB1*03:02			65(17)	DPA1*01:03			62(13)	DPB1*04:01			35(9)
	DRB1*04			100(19)									DQB1*03(DQ8)			50(9)	DPA1*01			100(10)	DPB1*04(DP401)			44(4)
													DQB1*03			44(8)					DOB1*04			56(5)
													DQB1*06			6 (1)								
	<u>26 labs High; 19 labs Low-DRB1</u>			%(n)	<u>21 labs High; 11 labs Low-DRB3/4/5</u>			%(n)	<u>21 labs High; 17 labs Low-DQA1</u>			%(n)	<u>26 labs High; 18 labs Low-DQB1</u>			%(n)					<u>26 labs High; 9 labs Low-DPB1</u>			%(n)
	DRB1*13:17			100(26)	DRB3*02:02:01			14(3)	DQA1*04:01:01			29(6)	DQB1*04:02:01			23(6)					DPB1*04:02:01			7 (2)
	DRB1*13			100(19)	DRB3*02:02P			19(4)	DQA1*04:01			71(15)	DQB1*04:02:01G			8 (2)					DPB1*04:02:01G			23(6)
					DRB3*02:02			67(14)	DQA1*04			94(16)	DQB1*04:02P			4 (1)					DPB1*04:02P			35(9)
					DRB3*02			100(11)	DQA1*02			6 (1)	DQB1*04:02			65(17)					DPB1*04:02			35(9)
													DQB1*04			100(18)					DOB1*04			56(5)
																					DPB1*04(DP402)			44(4)
DNA Typing - class I	<u>26 labs High; 20 labs Low- A</u>			%(n)	<u>26 labs High; 20 labs Low- B</u>			%(n)	<u>26 labs High; 19 labs Low- C</u>			%(n)												
	A*02:01:01:01			4 (1)	B*15:01:01:01			4 (1)	C*03:03:01:01			4 (1)												
	A*02:01:01			31(8)	B*15:01:01			27(7)	C*03:03:01			27(7)												
	A*02:01P			4 (1)	B*15:01P			4 (1)	C*03:03P			4 (1)												
	A*02:01			61(16)	B*15:01			65(17)	C*03:03			65(17)												
	A*02			100(20)	B*15(B62)			50(10)	C*03(Cw9)			53(10)												
					B*15			50(10)	C*03			47(9)												

Table 4a: Individual laboratory results for B-cell #637- Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
725	*12		3*03		*01	*06	*03(DQ7)	*05					SSO	
747	*12	*12	3*03	3*03	*01	*06	*03(DQ7)	*05	*02	*02	*03	*13	SSP SSO NGS	
771	*12	*12			*01	*06	*03	*05					RT-PCR	
792	*12	*12	3*03	3*03	*01	*06	*03(DQ7)	*05	*02	*02	*03	*13	SSO NGS	
793	*12	*12	3*03	3*03	*01	*06	*03(DQ7)	*05	*02	*02			SSO NGS	
794	*12	*12	3*03	3*03	*01	*06	*03	*05	*02	*02	*03	*13	RT-PCR	
2400	*12	*12	3*03	3*03	*01	*06	*03	*05	*02	*02	*03	*13	SSO NGS	
2847	*12												SSO	
3519	*12	*12	3*03	3*03	*01	*06	*03	*05	*02	*02	*03	*13	SSP NGS	
3753	*12	*12	3*03	3*03	*01	*06	*03(DQ7)	*05	*02	*02	*03	*13	SSO	
3966													SSP SSO	
5130	*12	*12	3*03	3*03	*01	*06	*03	*05	*02	*02	*03	*13	RT-PCR	
5214	*12		3*03		*01	*06	*03(DQ7)	*05	*02	*02	*03	*13	NGS RT-PCR	
5219	*12	*12			*01	NT	*03	*05					SSO NGS	
5488													SSO NGS	
6649	*12	*12					*03(DQ7)	*05					SSO SBT	
8029	*12	*12			*01	*06	*03	*05						
8043	*12				*01	*06	*03	*05					SSO NGS	
8058	*12	13	NT	NT	*01	*06	*03	*05	NT	NT	NT	NT	SSO	
8068	*12	*12			*01	*06	*03	*05					SSO	
8123	*12	*12	3*03	3*03	*01	*06	*03(DQ7)	*05	*02	*02	*03	*13	RT-PCR	

Table 4b: Individual laboratory results for B-cell #637 - Class II

	High resolution													
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01	NGS	
747	*12:02:01	*12:02:01	3*03:01:03	3*03:01:03	*01:02:02	*06:01:01	*03:01:01	*05:02:01	*02:01:01	*02:02:02	*03:01:01	*13:01:01	SSP SSO NGS RT-PCR	
762	*12:02	*12:02	3*03:01	NT	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01	NGS	
771	*12:02	*12:02					*03:01	*05:02			*03:01	*13:01	SSO NGS	
792	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01	SSO NGS	
793											*03:01P	*13:01P	RT-PCR	
794	*12:02:01	*12:02:01	3*03:01	3*03:01	*01:02:02	*06:01:01	*03:01:01	*05:02:01	*02:01	*02:02	*03:01:01	*13:01:01	SSO NGS	
2344	*12:02:01G	*12:02:01G					*03:01:01G	*05:02:01G			*03:01:01G	*13:01:01G	NGS	
2400	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01:01G	*13:01:01G	SSO NGS	DQB1*03:276N DQB1*05:241
3135	*12:02P	*12:02P	3*03:01P	3*03:01P	*01:02	*06:01	*03:01P	*05:02P	*02:01	*02:02	*03:01P	*13:01P		
3224	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01P	*13:01P	NGS	
3511	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01	NGS	
3519	*12:02P	*12:02P	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02			*03:01	*13:01P	SSP NGS	DPB1*107:01
3966	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01:01G	*02:02:02G	*03:01:01G	*13:01:01G	SSP SSO RT-PCR	
4337	*12:02	*12:02					*03:01	*05:02			*03:01	*13:01	SSP SBT NGS	
5130	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01:01G	*13:01:01G	NGS RT-PCR	
5133	*12:02:01	*12:02:01	3*03:01:03	NT	*01:02:02	*06:01:01	*03:01:01	*05:02:01	*02:01:01	*02:02:02	*03:01:01	*13:01:01	NGS	
5219	*12:02:01	*12:02:01					*03:01:01	*05:02:01			*03:01:01	*13:01:01	SSO NGS	
5451	*12:02:01		3*03:01:03		*01:02:02	*06:01:01	*03:01:01	*05:02:01	*02:01:01	*02:02:02	*03:01:01	*13:01:01	NGS	
5462	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01	NGS	
5488	*12:02:01	*12:02:01	3*03:01:03	3*03:01:03	*01:02:02	*06:01:01	*03:01:01	*05:02:01	*02:01:01	*02:02:02	*03:01:01	*13:01:01	SSO NGS	
6649	*12:02	*12:02					*03:01	*05:02					SSO SBT	
8001	*12:02		3*03:01		*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01	NGS	
8029	*12:02:01	*12:02:01					*03:01:01G	*05:02:01			*03:01	*13:01		
8038	*12:02P	*12:02P	3*03:01:03:02	3*03:01:03:02	*01:02:02	*06:01:01	*03:01:01	*05:02:01	*02:01P	*02:02P	*03:01:01	*13:01P	NGS	
8043	*12:02		3*03:01		*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01	SSO NGS	
8122	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01	*02:02	*03:01	*13:01	NGS	
8137	*12:02	*12:02	3*03:01	3*03:01	*01:02	*06:01	*03:01	*05:02	*02:01:01G	*02:02:02G	*03:01	*13:01	SBT	

Table 5: Individual laboratory results for B-cell #637 - Class I

	Low resolution						High resolution							
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C		METHOD	Other Alleles
230							*24:02:01G	*24:03:01G	*35:05	*51:06	*04:01	*12:04	NGS	
725	*24		*35	*51	*04	*12							SSO	
													SSP SSO NGS	
747	*24	*24	*35	*51	*04	*12	*24:07:01	*24:33:01	*35:05:01	*51:06:01	*04:01:01	*12:04:02	RT-PCR	
762							*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	NGS	
771	*24	*24	*35	*51	*04	*12	*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	SSO NGS	
792	*24	*24	*35	*51	*04	*12	*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	SSO NGS	
793	*24	*24	*35	*51	*04	*12							RT-PCR	A*24:03
794	*24	*24	*35	*51	*04	*12	*24:07:01	*24:33	*35:05:01	*51:06:01	*04:01:01	*12:04:02	SSO NGS	
2344							*24:07:01	*24:33:01	*35:05:01	*51:06:01	*04:01:01	*12:04:02	NGS	
2400	*24	*24	*35	*51	*04	*12	*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	SSO NGS	
2847	*24	*24	*35	*51	*04	*12							SSO	
3135							*24:02P	*24:387	*35:05	*51:06:01:01	*04:01P	*12:04:01		
3224							*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	NGS	
3511							*24:07	*24:03P	*35:05	*51:06	*04:01	*12:04	NGS	
3519	*24	*24	*35	*51	*04	*12	*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	SSP NGS	
3753	*24	*24	*35	*51	*04	*12							SSO	
													SSP SSO	
3966	*24	*24	*35	*51	*04	*12							RT-PCR	
4337							*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	SSP SBT NGS	
5130	*24	*24	*35	*51	*04	*12	*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	NGS RT-PCR	
5133							*24:07:01:01	*24:33:01	*35:05:01	*51:06:01:01	*04:01:01:14	*12:04:02:01	NGS	
5214	*24	*24	*35	*51	*04	*12								
5219	*24	*24	*35	*51	*04	*12	*24:02:01	*24:387	*35:05:01	*51:06:01	*04:01:01	*12:04:02	SSO NGS	
5451							*24:07:01	*24:33:01	*35:05:01	*51:06:01	*04:01:01	*12:04:02	NGS	
5462							*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	NGS	
5488							*24:07:01	*24:33:01	*35:05:01	*51:06:01	*04:01:01	*12:04:02	SSO NGS	
6649	*24	*24	*35	*51			*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	SSO SBT	
8001							*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	NGS	
8029	*24	*24	*35	*51	*04	*12	*24:07:01	*24:33:01	*35:05:01	*51:06:01	*04:01:01	*12:04:02		
8038							*24:07:01:01	*24:33:01	*35:05:01:01	*51:06:01:01	*04:01:01	*12:04:02:01	NGS	
8043	*24	*24	*35	*51	*04	*12	*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	SSO NGS	
8058	*24	*24	*35	*51	*04	*12							SSO	
8068	*24	*24	*35	*51	*04	*12							SSO	
8122							*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	NGS	
8123	*24	*24	*35	*51	*04	*12							RT-PCR	
8137							*24:07	*24:33	*35:05	*51:06	*04:01	*12:04	SBT	

Table 6a: Individual laboratory results for B-cell #638- Class II

	Low resolution													
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
725	*03(DR17)	*13	3*01		*01	*05	*02	*06					SSO	
747	*03	*13	3*01	3*01	*01	*05	*02	*06	*01	*02	*01	*03	SSP SSO NGS	
771	*03	*13			*01	*05	*02	*06					RT-PCR	
792	*03(DR17)	*13	3*01	3*01	*01	*05	*02	*06	*01	*02	*01	*03	SSO NGS	
793	*03(DR17)	*13	3*01	3*01	*01	*05	*02	*06	*01	*02			RT-PCR	
794	*03	*13	3*01	3*01	*01	*05	*02	*06	*01	*02	*01	*03	SSO NGS	
2400	*03(DR17)	*13	3*01	3*01	*01	*05	*02	*06	*01	*02	*01	*03	SSO NGS	
2847	*03	*13											SSO	
3519	*03	*13	3*01	3*01	*01	*05	*02	*06	*01	*02	*01	*03	SSP NGS	
3753	*03(DR17)	*13	3*01	3*01	*01	*05	*02	*06	*01	*02	*01	*03	SSO	
3966													SSP SSO	
5130	*03	*13	3*01	3*01	*01	*05	*02	*06	*01	*02	*01	*03	RT-PCR	
5214	*03(DR17)	*13	3*01		*01	*05	*02	*06	*01	*02	*01	*03		
5219	*03	*13			*01	*05	*02	*06					SSO NGS	
5488													SSO NGS	
6649	*03	*13					*02	*06					SSO SBT	
8029	*03	*13			*01	*05	*02	*06						
8043	*03	*13			*01	*05	*02	*06					SSO NGS	
8058	*03	*13	NT	NT	*01	*05	*02	*06	NT	NT	NT	NT	SSO	
8068	*03	*13			*01	*05	*02	*06					SSO	
8123	*03(DR17)	*13	3*01	3*01	*01	*05	*02	*06	*01	*02	*01	*03	RT-PCR	

Table 6b: Individual laboratory results for B-cell #638 - Class II

	High resolution													
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01	*03:01	NGS	
747	*03:01:01	*13:06	3*01:01	3*01:01	*01:03:01	*05:01:01	*02:01:01	*06:03:01	*01:03:01	*02:01:02	*01:01:01	*03:01:01	SSP SSO NGS	
762	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01	*03:01	NGS	
771	*03:01	*13:06					*02:01	*06:03			*01:01	*03:01	SSO NGS	
792	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01:01G	*03:01	SSO NGS	DPB1*1049:01
793											*01:01P	*03:01P	RT-PCR	DRB1*03:147
794	*03:01:01	*13:06	3*01:01	3*01:01	*01:03:01	*05:01:01	*02:01:01	*06:03:01	*01:03:01	*02:01:02	*01:01:01	*03:01:01	SSO NGS	
2344	*03:01:01G	*13:06					*02:01:01G	*06:03:01G			*01:01:01G	*03:01:01G	NGS	
2400	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01:01G	*03:01:01G	SSO NGS	DQB1*02:163N
3135	*03:01P	*13:06	3*01:01:02G	3*01:01:02G	*01:03	*05:01	*02:01P	*06:03P	*01:03	*02:01	*01:01P	*03:01P		
3224	*03:01	*13:06	3*01:01P	3*01:01P	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01P	*03:01P	NGS	
3511	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01P	*03:01P	NGS	
3519	*03:01P	*13:06	3*01:01P	3*01:01P	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01P	*03:01P	SSP NGS	DRB1*03:147 DRB*3*01:62 DPB1*417:01 DPB1*1049:01
													SSP SSO	
3966	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03:01G	*02:01:02G	*01:01:01G	*03:01:01G	RT-PCR	
4337	*03:01	*13:06					*02:01	*06:03			*01:01	*03:01	SSP SBT NGS	
5130	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01:01G	*03:01:01G	NGS RT-PCR	
5133	*03:01:01	*13:06	3*01:01:02	NT	*01:03:01	*05:01:01	*02:01:01	*06:03:01	*01:03:01	*02:01:02	*01:01:01	*03:01:01	NGS	DPB1*417:01 DPB1*1049:01
5219	*03:01:01	*13:06					NT	NT			*01:01:01	*03:01:01	SSO NGS	
5451	*03:01:01	*13:06	3*01:01:02		*01:03:01	*05:01:01	*02:01:01	*06:03:01	*01:03:01	*02:01:02	*01:01P	*03:01P	NGS	
5462	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01P	*03:01P	NGS	DPB1*01:01 DPB1*417:01 DPB1*03:01 DPB1*1049:01
5488	*03:01:01	*13:06	3*01:01:02	3*01:01:02	*01:03:01	*05:01:01	*02:01:01	*06:03:01	*01:03:01	*02:01:02	*01:01:01G	*03:01:01G	SSO NGS	DPB1*01:01:01 DPB1*03:01:01 DPB1*1049:01 DPB1*417:01:01
6649	*03:01	*13:06					*02:01	*06:03					SSO SBT	
8001	*03:01	*13:06	3*01:01		*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01P	*03:01P	NGS	
8029	*03:01:01G	*13:06					*02:01:01G	*06:03:01G			*01:01:01G	*03:01:01G		
8038	*03:01P	*13:06	3*01:01P	3*01:01P	*01:03:01	*05:01:01	*02:01:01	*06:03:01	*01:03P	*02:01P	*01:01P	*03:01P	NGS	
8043	*03:01	*13:06	3*01:01		*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01	*03:01	SSO NGS	
8122	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03	*02:01	*01:01	*03:01	NGS	
8137	*03:01	*13:06	3*01:01	3*01:01	*01:03	*05:01	*02:01	*06:03	*01:03:01G	*02:01:02G	*01:01	*03:01	SBT	

Table 7: Individual laboratory results for B-cell #638 - 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	*32:01	*08:01	*44:02	*05:01	*07:01	NGS	
725	*01	*32	*08	*44	*05	*07							SSO	
747	*01	*32	*08	*44	*05	*07	*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01	SSP SSO NGS	
762							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	RT-PCR	
771	*01	*32	*08	*44	*05	*07	*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	NGS	
792	*01	*32	*08	*44	*05	*07	*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	SSO NGS	
793	*01	*32	*08	*44	*05	*07							SSO NGS	
794	*01	*32	*08	*44	*05	*07							RT-PCR	
794	*01	*32	*08	*44	*05	*07	*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01	SSO	
2344							*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01	SSO NGS	
2344							*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01	NGS	
2400	*01	*32	*08	*44	*05	*07	*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	SSO NGS	
2847	*01	*32	*08	*44	*05	*07							SSO	
3135							*01:01P	*32:01P	*08:01P	*44:02P	*05:01P	*07:01P		
3224							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	NGS	
3511							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	NGS	
3519	*01	*32	*08	*44	*05	*07	*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	SSP NGS	
3753	*01	*32	*08	*44	*05	*07							SSO	
3966	*01	*32	*08	*44	*05	*07							SSP SSO	
4337													RT-PCR	
4337							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	SSP SBT NGS	
5130	*01	*32	*08	*44	*05	*07	*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	NGS	
5130							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	RT-PCR	
5133							*01:01:01:01	*32:01:01:01	*08:01:01:55	*44:02:01:75	*05:01:01:02	*07:01:01:01	NGS	
5214	*01	*32	*08	*44	*05	*07								
5219	*01	*32	*08	*44	*05	*07	*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01	SSO NGS	
5451							*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01	NGS	
5462							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	NGS	
5488							*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01	SSO NGS	
6649	*01	*32	*08	*44			*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	SSO SBT	
8001							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	NGS	
8029	*01	*32	*08	*44	*05	*07	*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01		
8038							*01:01:01	*32:01:01	*08:01:01	*44:02:01	*05:01:01	*07:01:01	NGS	
8043	*01	*32	*08	*44	*05	*07	*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	SSO NGS	
8058	*01	*32	*08	*44	*05	*07							SSO	
8068	*01	*32	*08	*44	*05	*07							SSO	
8122							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	NGS	
8123	*01	*32	*08	*44	*05	*07							RT-PCR	
8137							*01:01	*32:01	*08:01	*44:02	*05:01	*07:01	SBT	

Table 8a: Individual laboratory results for B-cell #639- Class II

	Low resolution													
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
725	*04	*13	3*02	4*01	*03	*04	*03(DQ8)	*04					SSO	
747	*04	*13	3*02	4*01	*03	*04	*03(DQ8)	*04	*01	*01	*04	*04	SSP SSO NGS RT-PCR	
771	*04	*13			*03	*04	*03	*04					SSO NGS	
792	*04	*13	3*02	4*01	*03	*04	*03(DQ8)	*04	*01	*01	*04	*04	SSO NGS	
793	*04	*13	3*02	4*01	*03	*04	*03(DQ8)	*04	*01	*01			RT-PCR	
794	*04	*13	3*02	4*01	*03	*04	*03	*04	*01	*01	*04	*04	SSO NGS	
2400	*04	*13	3*02	4*01	*03	*04	*03(DQ8)	*04	*01	*01	*04(DP401)	*04(DP402)	SSO NGS	
2847	*04	*13											SSO	
3519	*04	*13	3*02	4*01	*03	*04	*03	*04	*01	*01	*04	*04	SSP NGS	
3753	*04	*13	3*02	4*01	*03	*04	*03(DQ8)	*04	*01	*01	*04(DP401)	*04(DP402)	SSO	
3966													SSP SSO RT-PCR	
5130	*04	*13	3*02	4*01	*03	*04	*03	*04	*01	*01	*04	*04	NGS RT-PCR	
5214	*04	*13	3*02	4*01	*03	*04	*03(DQ8)	*04	*01		*04(DP401)	*04(DP402)		
5219	*04	*13			*03	*04	*03	*04					SSO NGS	
5488													SSO NGS	
6649	*04	*13					*03(DQ8)	*04					SSO SBT	
8029	*04	*13			*03	*04	*03	*04						
8043	*04	*13			*03	*04	*03	*04					SSO NGS	
8058	*04	*13	NT	NT	*03	*02	*06	*04	NT	NT	NT	NT	SSO	
8068	*04	*13			*03	*04	*03	*04					SSO	
8123	*04	*13	3*02	4*01	*03	*04	*03(DQ8)	*04	*01	*01	*04(DP401)	*04(DP402)	RT-PCR	

Table 8b: Individual laboratory results for B-cell #639 - Class II

	High resolution													
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01	*04:02	NGS	DPB1*126:01 DPB1*105:01
747	*04:01:01	*13:17	3*02:02:01	4*01:03:01	*03:01:01	*04:01:01	*03:02:01	*04:02:01	*01:03:01	*01:03:01	*04:01:01	*04:02:01	SSP SSO NGS RT-PCR	
762	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01	*04:02	NGS	DPB1*105:01 DPB1*126:01
771	*04:01	*13:17					*03:02	*04:02			*04:01	*04:02	SSO NGS	
792	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01:01G	*04:02:01G	SSO NGS	
793											*04:01P	*04:02P	RT-PCR	
794	*04:01:01	*13:17	3*02:02	4*01:03	*03:01:01	*04:01:01	*03:02:01	*04:02:01	*01:03:01	*01:03:01	*04:01	*04:02	SSO NGS	DPB1*105:01 DPB1*126:01
2344	*04:01:01G	*13:17					*03:02:01G	*04:02:01G			*04:01:01G	*04:02:01G	NGS	
2400	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01:01G	*04:02:01G	SSO NGS	DQB1*03:289 DQB1*03:416
3135	*04:01P	*13:17	3*02:02P	4*01:01P	*03:01:01G	*04:01	*03:02P	*04:02P	*01:03	*01:03	*04:01P	*04:02P		
3224	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01P	*04:02P	NGS	
3511	*04:01	*13:17	3*02:02P	4*01:01P	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01P	*04:02P	NGS	
3519	*04:01	*13:17	3*02:02P	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01P	*04:02P	SSP NGS	DPB1*105:01 DPB1*1072:01 DPB1*126:01 DPB1*665:01
3966	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03:01G	*01:03:01G	*04:01:01G	*04:02:01G	SSP SSO RT-PCR	
4337	*04:01	*13:17					*03:02	*04:02			*04:01	*04:02	SSP SBT NGS	
5130	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01:01G	*04:02:01G	NGS RT-PCR	
5133	*04:01:01	*13:17	3*02:02:01	4*01:03:01	*03:01:01	*04:01:01	*03:02:01	*04:02:01	*01:03:01	*01:03:01	*04:01:01	*04:02:01	NGS	DPB1*126:01:01 DPB1*105:01:01
5219	NT	NT					NT	NT			NT	NT	SSO NGS	
5451	*04:01:01	*13:17	3*02:02P	4*01:01P	*03:01:01	*04:01:01	*03:02:01	*04:02:01	*01:03:01		*04:01P	*04:02P	NGS	
5462	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01P	*04:02P	NGS	DPB1*04:01 DPB1*126:01 DPB1*04:02 DPB1*105:01
5488	*04:01:01	*13:17	3*02:02:01	4*01:03:01	*03:01:01	*04:01:01	*03:02:01	*04:02:01	*01:03:01	*01:03:01	*04:01:01G	*04:02:01G	SSO NGS	DPB1*04:01:01 DPB1*126:01:01 DPB1*04:02:01 DPB1*105:01:01
6649	*04:01	*13:17					*03:02	*04:02					SSO SBT	
8001	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03		*04:01P	*04:02P	NGS	
8029	*04:01:01G	*13:17					*03:02:01G	*04:02:01G			*04:01	*04:02		
8038	*04:01:01	*13:17	3*02:02	4*01:01P	*03:01:01	*04:01:01	*03:02:01	*04:02:01	*01:03P	*01:03P	*04:01P	*04:02P	NGS	
8043	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03		*04:01	*04:02	SSO NGS	

Table 8b: Individual laboratory results for B-cell #639 - Class II														
	High resolution													
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
8122	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03	*01:03	*04:01	*04:02	NGS	DPB1*105:01 DPB1*126:01
8137	*04:01	*13:17	3*02:02	4*01:03	*03:01	*04:01	*03:02	*04:02	*01:03:01G	*01:03:01G	*04:01	*04:02	SBT	

Table 9: Individual laboratory results for B-cell #639 - 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	*32:01	*15:01	*15:01	*03:03	*03:03	NGS	
725	*02	*32	*15(B62)		*03(Cw9)								SSO	
747	*02	*32	*15(B62)	*15(B62)	*03(Cw9)	*03(Cw9)	*02:01:01	*32:01:01	*15:01:01	*15:01:01	*03:03:01	*03:03:01	SSP SSO NGS RT-PCR	
762							*02:01	*32:01	*15:01	NT	*03:03	NT	NGS	
771	*02	*32	*15	*15	*03	*03	*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	SSO NGS	
792	*02	*32	*15(B62)	*15(B62)	*03(Cw9)	*03(Cw9)	*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	SSO NGS	
793	*02	*32	*15(B62)	*15(B62)	*03(Cw9)	*03(Cw9)							RT-PCR	
794	*02	*32	*15	*15	*03	*03	*02:01:01	*32:01:01	*15:01:01	*15:01:01	*03:03:01	*03:03:01	SSO NGS	
2344							*02:01:01	*32:01:01	*15:01:01	*15:01:01	*03:03:01	*03:03:01	NGS	
2400	*02	*32	*15(B62)	*15(B62)	*03(Cw9)	*03(Cw9)	*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	SSO NGS	
2847	*02	*32	*15		*03								SSO	
3135							*02:01P	*32:01P	*15:01P	*15:01P	*03:03P	*03:03P		
3224							*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	NGS	
3511							*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	NGS	
3519	*02	*32	*15	*15	*03	*03	*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	SSP NGS	
3753	*02	*32	*15(B62)	*15(B62)	*03(Cw9)	*03(Cw9)							SSO	
3966	*02	*32	*15(B62)	*15(B62)	*03(Cw9)	*03(Cw9)							SSP SSO RT-PCR	
4337							*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	SSP SBT NGS	
5130	*02	*32	*15	*15	*03	*03	*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	NGS RT-PCR	
5133							*02:01:01:01	*32:01:01:01	*15:01:01:01	*15:01:01:01	*03:03:01:01	*03:03:01:01	NGS	
5214	*02	*32	*15(B62)		*03(Cw9)									
5219	*02	*32	*15	*15	*03	*03	*02:01:01	*32:01:01	*15:01:01	*15:01:01	*03:03:01	*03:03:01	SSO NGS	
5451							*02:01:01	*32:01:01	*15:01:01		*03:03:01		NGS	
5462							*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	NGS	
5488							*02:01:01	*32:01:01	*15:01:01	*15:01:01	*03:03:01	*03:03:01	SSO NGS	
6649	*02	*32	*15(B62)	*15(B62)			*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	SSO SBT	
8001							*02:01	*32:01	*15:01		*03:03		NGS	
8029	*02	*32	*15	*15	*03	*03	*02:01:01	*32:01:01	*15:01	*15:01	*03:03	*03:03		
8038							*02:01:01	*32:01:01	*15:01:01	*15:01:01	*03:03:01	*03:03:01	NGS	
8043	*02	*32	*15		*03		*02:01	*32:01	*15:01		*03:03		SSO NGS	
8058	*02	*32	*15	*46	*03	*03							SSO	
8068	*02	*32	*15	*15	*03	*03							SSO	
8122							*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	NGS	DPB1*105:01 DPB1*126:01
8123	*02	*32	*15(B62)	*15(B62)	*03(Cw9)	*03(Cw9)							RT-PCR	
8137							*02:01	*32:01	*15:01	*15:01	*03:03	*03:03	SBT	