

# REPORT OF THE 411<sup>th</sup> CELL EXCHANGE

## JULY 16, 2019

B-cell Lines	563-564
Cells	1641-1644
Sera	1269-1272

### B-cell Line Exchange #282

The results for B-cell Line Exchange #282 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 6. We would like to express our appreciation to **Welsh Blood Service, Pontyclun** for its generosity in sharing its valuable reference cells with

us. We would like to also acknowledge and thank the labs performing NGS 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-563.** The consensus type for this cell from a Caucasian donor is DRB1\*12:01-DRB1\*15:01-DRB3\*02:02-DRB5\*01:01-DQA1\*01:02-DQA1\*05:05-DQB1\*03:01-DQB1\*06:02-DPA1\*01:03-DPB1\*04:01/A\*26:01-A\*68:01-B\*27:23-B\*44:02-C\*02:02-C\*05:01. One likely haplotype present in this cell is A\*68:01-B\*44:02-C\*05:01-DRB1\*15:01-DQB1\*06:02, exclusively observed in Caucasians, with HF = 0.00019. The other likely association present is A\*26:01-B\*27:23-C\*02:02-DRB1\*12:01-DQB1\*03:01, observed in other B\*27:23 cells (1).

This cell is 30733VTIS, one of the reference cells for B\*27:23. It was examined previously in the Exchange as extracts 570 (2013) and 438 (2008). In this present retyping, B\*27:23 was reported in complete consensus by labs reporting at high resolution. B\*44:02 (100%) was assigned as the second B-locus type, with 6 labs assigning B\*44:02:01. The DRB1 types were reported as DRB1\*12:01 (100%) and DRB1\*15:01 (100%). DRB1\*12:01:01 and DRB1\*15:01:01 were each assigned by 8 labs. DQB1\*03:01 and DQB1\*06:02 were also reported in complete consensus by labs reporting at high resolution, with 6 labs reporting DQB1\*03:01:01 and 6 labs reporting DQB1\*06:02:01.

**Ter-564.** The consensus type for this cell from an Australian Aboriginal donor is DRB1\*08:03-DRB1\*14:14-DRB3\*02:02-DQA1\*01:03-DQA1\*01:04-DQB1\*05:03-DQB1\*06:01-DPA1\*01:03-DPB1\*02:01/A\*02:01-A\*34:01-B\*40:02-B\*56:02-C\*01:02-C\*15:02. One likely association present is A\*02:01-B\*40:02-DRB1\*08:03, observed exclusively in Asians, with HF = 0.00097. The other likely association present may then be A\*34:01-B\*56:02-DRB1\*14:14.

This cell is known as IHL, AD036. It is a reference cell for B\*56:02, DQA1\*01:03:01:03, and DRB1\*14:14. This workshop cell (IHW#9124) was examined previously in the B-cell line Exchange as Ter 421 (2009), Ter 279 (2001), and Ter 235 (1999), as well as in the class I DNA Extract Exchange as extracts 495 (2010), 188 (2001), and 89 (1999). We congratulated Rao for correctly identifying this cell as being previously examined.

In this present study, B\*56:02 (100%) and B\*40:02 (95%) were the reported B-locus assignments, with B\*56:02:01 and B\*40:02:01 each assigned by 5 labs. DRB1\*14:14 (100%) and DRB1\*08:03 (100%), were also well assigned, with 9 labs assigning DRB1\*08:03:02. Two subtypes of DQA1\*01 were reported in this sample, DQA1\*01:03 (100%) and DQA1\*01:04 (96%). DQA1\*01:03:01 and DQA1\*01:04:01 were each assigned by 5 labs.

#### References:

1. Darke C, Street J, Hammond L, et al. Immunogenetic study of a new HLA allele, B\*27:23. *Tissue Antigens* 2002;60:400-403.

**Table 1: Summary of the 282<sup>nd</sup> B-cell Line Exchange**

**Ter-563**

Ter-563												
<b>DNA Typing - class II</b>	<b>30 labs High; 30 labs low-DRB1</b>	%(n)	<b>20 labs High; 21 labs Low-DRB3/4/5</b>	%(n)	<b>21 labs High; 27 labs Low-DQA1</b>	%(n)	<b>29 labs High; 28 labs Low-DQB1</b>	%(n)	<b>16 labs High; 15 labs Low-DPA1</b>	%(n)	<b>26 labs High; 18 labs Low-DPB1</b>	%(n)
	DRB1*12:01:01	26(8)	DRB3*02:02:01:01	5 (1)	DQA1*01:02:01:01	10(2)	DQB1*03:01:01:05	14(4)	DPA1*01:03:01:02	12 (2)	DPB1*04:01:01:01	8 (2)
	DRB1*12:01:01G	7 (2)	DRB3*02:02:01	20(4)	DQA1*01:02:01	14(3)	DQB1*03:01:01	7 (2)	DPA1*01:03:01	12 (2)	DPB1*04:01:01	19(5)
	DRB1*12:01P	7 (2)	DRB3*02:02P	5 (1)	DQA1*01:02	76(16)	DQB1*03:01:02	3 (1)	DPA1*01:03P	6 (1)	DPB1*04:01	73(19)
	DRB1*12:01	60(18)	DRB3*02:02	70(14)	DQA1*01	100(27)	DQB1*03:01P	3 (1)	DPA1*01:03	69(11)	DPB1*04(DP401)	61(11)
	DRB1*12	100(30)	DRB3*02	81(17)			DQB1*03:01	72(21)	DPA1*01	100(15)	DPB1*04	39(7)
			DRB3*PRESENT	19(4)			DQB1*03(DQ7)	4 (1)				
							DQB1*03	96(27)				
<b>DNA Typing - class I</b>	<b>30 labs High; 30 labs low-DRB1</b>	%(n)	<b>20 labs High; 21 labs Low-DRB3/4/5</b>	%(n)	<b>22 labs High; 27 labs Low-DQA1</b>	%(n)	<b>29 labs High; 28 labs Low-DQB1</b>	%(n)				
	DRB1*15:01:01:01	3 (1)	DRB5*01:01:01	25(5)	DQA1*05:05:01:06	9 (2)	DQB1*06:02:01:01	7 (2)				
	DRB1*15:01:01	23(7)	DRB5*01:01P	5 (1)	DQA1*05:05:01:03	5 (1)	DQB1*06:02:01	14(4)				
	DRB1*15:01	73(22)	DRB5*01:01	70(14)	DQA1*05:05:01	9 (2)	DQB1*06:02:02	3 (1)				
	DRB1*15	100(30)	DRB5*01	81(17)	DQA1*05:05	77(17)	DQB1*06:02P	3 (1)				
			DRB5*PRESENT	19(4)	DQA1*05	100(27)	DQB1*06:02	72(21)				
							DQB1*01	100(28)				
<b>DNA Typing - class I</b>	<b>20 labs High; 24 labs low- A</b>	%(n)	<b>21 labs High; 24 labs low- B</b>	%(n)	<b>20 labs High; 23 labs low- C</b>	%(n)						
	A*26:01:01:01	15(3)	B*27:23	100(21)	C*02:02:02:01	15(3)						
	A*26:01:01	15(3)	B*27	100(24)	C*02:02:02	15(3)						
	A*26:01P	5 (1)			C*02:02P	5 (1)						
	A*26:01	65(13)			C*02:02	65(13)						
	A*26	100(24)			C*02	100(23)						
<b>DNA Typing - class I</b>	<b>20 labs High; 24 labs low- A</b>	%(n)	<b>20 labs High; 24 labs low- B</b>	%(n)	<b>20 labs High; 23 labs low- C</b>	%(n)						
	A*68:01:02:01	15(3)	B*44:02:01:01	10(2)	C*05:01:01:02	15(3)						
	A*68:01:02	15(3)	B*44:02:01	20(4)	C*05:01:01	15(3)						
	A*68:01P	5 (1)	B*44:02P	5 (1)	C*05:01P	5 (1)						
	A*68:01	65(13)	B*44:02	65(13)	C*05:01	65(13)						
	A*68	100(24)	B*44	100(24)	C*05	100(23)						



**Table 3a: Individual laboratory results for B-cell #563 - Class II**

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
206	*12	*15	3*02	5*01	*01	*05	*03	*06	*01		*04			
278	*12	*15	3*02	5*01	*01	*05	*03	*06	*01	*01	*04	*04		
725	*12	*15	3*PRESENT	5*PRESENT	*01	*05	*03	*06					SSP SSO	
731	*12	*15			*01	*05	*03	*06					SSP SSO SBT	
735	*12	*15	3*02	5*01	*01	*05	*03	*06	*01	*01	*04(DP401)	*04(DP401)	SSP SSO SBT	
747	*12	*15	3*PRESENT	5*PRESENT	*01	*05	*03	*06	*01	*01	*04	*04	SSP SSO NGS	
771	*12	*15			*01	*05	*03	*06					SSP SSO	
774	*12	*15	3*02	5*01	*01	*05	*03	*06			*04(DP401)		SSP SSO	
792	*12	*15	3*02	5*01	*01	*05	*03	*06	*01	*01	*04	*04	SSO SBT	
793	*12	*15	3*02	5*01	*01	*05	*03	*06			*04(DP401)		SSP	
794	*12	*15	3*02	5*01	*01	*05	*03	*06	*01		*04		SSP SSO NGS	
2400	*12	*15	3*02	5*01	*01	*05	*03	*06	*01	*01	*04	*04	RT-PCR	
2847	*12	*15											SSO NGS	
													SSO	
3519	*12	*15			*01	*05	*03	*06	*01		*04(DP401)		SSP NGS	
3632	*12	*15	3*02	5*01	*01	*05	*03	*06	*01		*04(DP401)		RT-PCR	
3753	*12	*15	3*02	5*01	*01	*05	*03	*06	*01	*01	*04(DP401)	*04(DP401)	SSP SSO	
3966													SSO	
4079	*12	*15	3*02	5*01	*01	*05	*03	*06	*01		*04(DP401)		SSP	
4251	*12	*15	3*02	5*01	*01	*05	*03	*06	*01	*01	*04(DP401)	*04(DP401)	SSP SSO NGS	
4492	*12	*15	3*PRESENT	5*PRESENT	*01	*05	*03	*06	*01		*04(DP401)		SSO NGS	
5130	*12	*15	3*02	5*01	*01	*05	*03	*06			*04(DP401)	*04	SSP SSO NGS	
5214	*12	*15	3*02	5*01	*01	*05	*03 (DQ7)	*06	*01		*04(DP401)		SSO NGS	
5219	*12	*15			*01	*05	*03	*06					RT-PCR	
5451	*12	*15	3*02	5*01	*01	*05	*03	*06					SSO	
5462	*12	*15	3*02	5*01	*01	*05	*03	*06	*01		*04(DP401)		SSO SBT	
5462	*12	*15	3*PRESENT	5*PRESENT			*03	*06					SSO	
5642	*12	*15												
6649	*12	*15											SSO	
8001	*12	*15	3*02	5*01	*01	*05	*03	*06					SSP SSO	
8029	*12	*15			*01	*05	*03	*06					SSO	
8042													SSO	
8043	*12	*15			*01	*05	*03	*06					SSP SSO	
8068	*12	*15			*01	*05	*03	*06					SSO	

**Table 3b: Individual laboratory results for B-cell #563 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*12:01	*15:01					*03:01	*06:02			*04:01	*04:01	SSO SBT	
278	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02	*01:03	*01:03	*04:01	*04:01		
731	*12:01	*15:01					*03:01:02	*06:02:02					SSP SSO SBT	
735	*12:01P	*15:01	3*02:02P	5*01:01P	*01:02	*05:05	*03:01P	*06:02P	*01:03P	*01:03P	*04:01	*04:01	SSP SSO SBT	
747	*12:01:01	*15:01:01:01	3*02:02:01:01	5*01:01:01	*01:02:01:01	*05:05:01:06	*03:01:01:05	*06:02:01:01	*01:03:01:02	*01:03:01:02	*04:01:01:01	*04:01:01:01	SSP SSO NGS	DRB1*12:10
762	*12:01:01	*15:01:01	3*02:02:01	5*01:01:01	*01:02:01	*05:05:01:03	*03:01:01:05	*06:02:01	*01:03:01:02		*04:01:01:01		NGS	
771	*12:01	*15:01					*03:01	*06:02					SSP SSO	
														DRB1*15:85 DRB1*15:86 DRB1*15:106 DRB1*15:107 DRB1*15:108 DRB1*15:111 DRB1*15:112 DRB1*15:114 DRB5*01:16 DQB1*03:73 DQB1*03:92 DQB1*03:93 DQB1*03:276N DQB1*06:111
774	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02			*04:01		SSP SSO	
792	*12:01	*15:01					*03:01	*06:02			*04:01	*04:01	SSO SBT	
793					*01:02	*05:05					*04:01		SSP	
794	*12:01:01	*15:01:01	3*02:02:01	5*01:01:01	*01:02	*05:05	*03:01:01	*06:02:01	NT	NT	*04:01:01		SSP SSO NGS RT-PCR	DRB1*12:10
2344	*12:01:01	*15:01:01					*03:01	*06:02:01			*04:01:01	*04:01:01	NGS	DQB1*03:276N DRB1*12:10
2400	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02	*01:03	*01:03	*04:01	*04:01	SSO NGS	DRB1*12:10 DQB1*03:276N
3135	*12:01:01G	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02	*01:03		*04:01			DQA1*05:09
3511	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02	*01:03	*01:03	*04:01	*04:01	SSP SSO	
3519	*12:01P	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02	*01:03	*01:03	*04:01	*04:01	SSP NGS RT-PCR	
3632	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02	*01:03		*04:01		SSP SSO	
3966	*12:01	*15:01	3*02:02	5*01:01			*03:01	*06:02					SSP	
4079	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02	*01:03		*04:01		SSP SSO NGS	
4251	*12:01:01G	*15:01	3*02:02	5*01:01		*05:05	*03:01	*06:02	*01:03	*01:03	*04:01	*04:01	SSO NGS	
4337	*12:01	*15:01					*03:01	*06:02			*04:01	*04:01	SBT NGS	
4492	*12:01:01	*15:01:01	3*02:02	5*01:01	*01:02:01	*05:05:01	*03:01:01:05	*06:02	*01:03	*01:03	*04:01:01	*04:01:01	SSP SSO NGS	DRB1*12:10 DQB1*12:10
5130	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02			*04:01	*04:01	SSO NGS	DRB1*12:10
5133	*12:01:01	*15:01:01	3*02:02:01	5*01:01:01	*01:02:01:01	*05:05:01:06	*03:01:01:05	*06:02:01:01	*01:03:01		*04:01:01		NGS	
5451	*12:01:01	*15:01:01											SSO SBT	
5462	NT	NT	NT	NT	NT	NT	NT	NT	NT		*04:01		SSO	
5488	*12:01:01	*15:01:01	3*02:02:01	5*01:01:01	*01:02:01	*05:05:01	*03:01:01	*06:02:01	*01:03:01		*04:01:01		SSO SBT NGS	DRB1*12:10

**Table 3b: Individual laboratory results for B-cell #563 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
5642	*12:01	*15:01					*03:01	*06:02						
8001	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02				*04:01	SSP SSO	
8021	*12:01	*15:01	3*02:02	5*01:01	*01:02	*05:05	*03:01	*06:02	*01:03			*04:01		
8043	*12:01	*15:01			*01:02	*05:05	*03:01	*06:02					SSP SSO	
8086	*12:01	*15:01			*01:02	*05:05	*03:01	*06:02	*01:03	*01:03	*04:01	*04:01	SSO SBT	

**Table 4: Individual laboratory results for B-cell #563 - Class I**

Table 4: Individual laboratory results for B-cell #563 - Class I														
Low resolution							High resolution						METHOD	Other Alleles
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
206	*26	*68	*27	*44	*02	*05								
230							*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSO SBT	
278	*26	*68	*27	*44	*02	*05	*26:01	*68:01	*27:23	*44:02	*02:02	*05:01		
725	*26	*68	*27	*44	*02	*05							SSP SSO	
735	*26	*68	*27	*44	*02	*05	*26:01P	*68:01P	*27:23	*44:02P	*02:02P	*05:01P	SSP SSO SBT	
747	*26	*68	*27	*44	*02	*05	*26:01:01:01	*68:01:02:01	*27:23	*44:02:01:01	*02:02:02:01	*05:01:01:02	SSP SSO NGS	
774	*26	*68	*27	*44	*02	*05			*27:23				SSP SSO	
792	*26	*68	*27	*44	*02	*05	*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSO SBT	B*44:02:01:02S
793	*26	*68	*27	*44	*02	*05							SSP	
794	*26	*68	*27	*44	*02	*05	*26:01:01	*68:01:02	*27:23	*44:02:01	*02:02:02	*05:01:01	SSP SSO NGS RT-PCR	
2344							*26:01:01	*68:01:02	*27:23	*44:02:01	*02:02:02	*05:01:01	NGS	
2400	*26	*68	*27	*44	*02	*05	*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSO NGS	
2847	*26	*68	*27	*44	*02	*05							SSO	
3135							*26:01	*68:01	*27:23	*44:02	*02:02	*05:01		
3511							*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSP SSO	
3519	*26	*68	*27	*44	*02	*05	*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSP NGS RT-PCR	
3753	*26	*68	*27	*44	*02	*05							SSO	
3966	*26	*68	*27	*44	*02	*05							SSP	
4079	*26	*68	*27	*44	*02	*05	*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSP SSO NGS	
4251	*26	*68	*27	*44	*02	*05	*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSO NGS	
4337							*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SBT NGS	
4492	*26	*68	*27	*44	*02	*05	*26:01:01:01	*68:01:02:01	*27:23	*44:02:01	*02:02:02:01	*05:01:01:02	SSP SSO NGS	
5130	*26	*68	*27	*44	*02	*05	*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSO NGS	
5133							*26:01:01:01	*68:01:02:01	*27:23	*44:02:01:01	*02:02:02:01	*05:01:01:02	NGS	
5214	*26	*68	*27	*44	*02	*05							RT-PCR	
5219	*26	*68	*27	*44	*02	*05							SSO	
5462	*26	*68	*27	*44	*02	*05	NT	NT	NT	NT	NT	NT	SSO	
5488							*26:01:01	*68:01:02	*27:23	*44:02:01	*02:02:02	*05:01:01	SSO SBT NGS	
8021							*26:01	*68:01	*27:23	*44:02	*02:02	*05:01		
8029	*26	*68	*27	*44	*02	*05							SSO	
8042	*26	*68	*27	*44									SSO	
8068	*26	*68	*27	*44	*02	*05							SSO	
8086							*26:01	*68:01	*27:23	*44:02	*02:02	*05:01	SSO SBT	

**Table 5a: Individual laboratory results for B-cell #564 - Class II**

Center	Low resolution												METHOD	Other Alleles
	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1			
206	*08	*14	3*02		*01		*05	*06	*01		*02	*02		
278	*08	*14	NT	3*02	*01	*01	*05	*06	*01	*01	*02	*02		
725	*08	*14	3*PRESENT		*01		*05	*06					SSP SSO	
731	*08	*14			*01	*01	*05	*06					SSP SSO SBT	
735	*08	*14	3*02		*01	*01	*05	*06	*01	*01	*02(DP201)	*02(DP201)	SSP SSO SBT	
747	*08	*14	3*PRESENT		*01	*01	*05	*06	*01	*01	*02	*02	SSP SSO NGS	
771	*08	*14			*01	*01	*05	*06					SSP SSO	
774	*08	*14	3*02		*01	*01	*05	*06			*02(DP201)		SSP SSO	
792	*08	*14	3*02		*01	*01	*05	*06	*01	*01	*02	*02	SSO SBT	
793	*08	*14	3*02		*01	*01	*05	*06			*02		SSP	
794	*08	*14	3*02	NP	*01		*05	*06	*01		*02		SSP SSO NGS RT-PCR	
2400	*08	*14	3*02	NP	*01	*01	*05	*06	*01	*01	*02	*02	SSO NGS	
2847	*08	*14											SSO	
3519	*08	*14			*01	*01	*05	*06	*01		*02(DP201)		SSP NGS RT-PCR	
3632	*08	*14	3*02		*01	*01	*05	*06	*01		*02(DP201)		SSP SSO	
3753	*08	*14	3*02	NP	*01	*01	*05	*06	*01	*01	*02	*02	SSO	
3966													SSP	
4079	*08	*14	3*02		*01		*05	*06	*01		*02(DP201)		SSP SSO NGS	
4251	*08	*14	3*02		*01	*01	*05	*06	*01	*01	*02(DP201)	*02(DP201)	SSO NGS	
4492	*08	*14	3*PRESENT		*01		*05	*06	*01		*02		SSP SSO NGS	
5130	*08	*14	3*02		*01	*01	*05	*06			*02	*02	SSO NGS	
5214	*08	*14	3*02		*01	*01	*05	*06	*01		*02(DP201)		RT-PCR	
5219	*08	*14			*01	*01	*05	*06					SSO	
5451	*08	*14	3*02		*01	*01	*05	*06					SSO SBT	
5462	*08	*14	NP	3*02	*01	*01	*05	*06	*01		*02(DP201)		SSO	
5642	*08	*14	3*PRESENT				*05	*06						
6649	*08	*14											SSO	
8001	*08	*14	3*02		*01	*01	*05	*06					SSP SSO	
8029	*08	*14			*01	*01	*05	*06					SSO	
8042													SSO	
8043	*08	*14			*01	*01	*05	*06					SSP SSO	
8068	*08	*14			*01	*01	*05	*06					SSO	



**Table 5b: Individual laboratory results for B-cell #564 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*08:03	*14:14					*05:03	*06:01			*02:01	*02:01	SSO SBT	
278	*08:03	*14:14	3*02:02	NT	*01:03	*01:04	*05:03	*06:01	*01:03	*01:03	*02:01	*02:01		
731	*08:03:02	*14:14					*05:03:02	*06:01					SSP SSO SBT	
735	*08:03	*14:14	3*02:02P		*01:03	*01:01P	*05:03P	*06:01P	*01:03P	*01:03P	*02:01	*02:01	SSP SSO SBT	
747	*08:03:02	*14:14	3*02:02:01:02		*01:03:01	*01:04:01	*05:03:01	*06:01	*01:03:01:01	*01:03:01:01	*02:01:02	*02:01:02	SSP SSO NGS	
762	*08:03:02	*14:14	3*02:02:01		*01:03:01	*01:04:01	*05:03:01	*06:01:01	*01:03:01:01		*02:01:02		NGS	
771	*08:03	*14:14					*05:03	*06:01					SSP SSO	
774	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03	*06:01			*02:01		SSP SSO	DRB1*08:58
792	*08:03	*14:14					*05:03	*06:01			*02:01	*02:01	SSO SBT	
793					*01:03	*01:04					*02:01		SSP	
794	*08:03:02	*14:14	3*02:02:01	NP	*01:03	*01:04	*05:03:01	*06:01:01	NT	NT	*02:01:02		SSP SSO NGS RT-PCR	
2344	*08:03:02	*14:14					*05:03:01	*06:01			*02:01:02	*02:01:02	NGS	DPB1*02:01:19
2400	*08:03	*14:14	3*02:02	NP	*01:03	*01:04	*05:03	*06:01	*01:03	*01:03	*02:01	*02:01	SSO NGS	
3135	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03	*06:01	*01:03		*02:01			DQA1*01:01 DQA1*01:05
3511	*08:03	*14:14	3*02:02	3*02:02	*01:03	*01:04	*05:03	*06:01	*01:03	*01:03	*02:01	*02:01	SSP SSO	
3519	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03	*06:01	*01:03		*02:01		SSP NGS RT-PCR	
3632	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03	*06:01	*01:03		*02:01		SSP SSO	
3966	*08:03	*14:14	3*02:02				*05:03	*06:01					SSP	
4079	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03	*06:01	*01:03		*02:01		SSP SSO NGS	
4251	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03:01G	*06:01	*01:03	*01:03	*02:01	*02:01	SSO NGS	
4337	*08:03	*14:14					*05:03	*06:01			*02:01	*02:01	SBT NGS	
4492	*08:03:02	*14:14	3*02:02		*01:03:01	*01:04:01	*05:03	*06:01	*01:03	*01:03	*02:01:02	*02:01:02	SSP SSO NGS	
5130	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03	*06:01			*02:01	*02:01	SSO NGS	
5133	*08:03:02	*14:14	3*02:02:01		*01:03:01	*01:04:01	*05:03:01	*06:01:01	*01:03:01		*02:01:02		NGS	DPB1*02:01:19
5451	*08:03:02	*14:14											SSO SBT	
5462	NT	NT	NT	NP	NT	NT	NT	NT	NT		*02:01		SSO	
5488	*08:03:02	*14:14	3*02:02:01		*01:03:01	*01:04:01	*05:03:01	*06:01:01	*01:03:01		*02:01:02		SSO SBT NGS	
5642	*08:03	*14:14					*05:03	*06:01						
8001	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03	*06:01			*02:01		SSP SSO	
8021	*08:03	*14:14	3*02:02		*01:03	*01:04	*05:03	*06:01	*01:03		*02:01			
8043	*08:03	*14:14			*01:03	*01:04	*05:03	*06:01					SSP SSO	
8086	*08:03	*14:14			*01:03	*01:04	*05:03	*06:01	*01:03	*01:03	*02:01	*02:01	SSO SBT	

**Table 6: Individual laboratory results for B-cell #564 - Class I**

Center	Low resolution						High resolution						METHOD	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
206	*02	*34	*40	*56	*01	*15								
230							*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSO SBT	
278	*02	*34	*40	*56	*01	*15	*02:01	*34:01	*40:02	*56:02	*01:02	*15:02		
725	*02	*34	*40	*56	*01	*15							SSP SSO	
735	*02	*34	*40	*56	*01	*15	*02:01P	*34:01	*40:02P	*56:02	*01:02P	*15:02P	SSP SSO SBT	
747	*02	*34	*40	*56	*01	*15	*02:01:01:01	*34:01:01	*40:02:01	*56:02:01	*01:02:01	*15:02:01:01	SSP SSO NGS	
774	*02	*34	*40	*56	*01	*15				*56:02			SSP SSO	
792	*02	*34	*40	*56	*01	*15	*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSO SBT	A*02:01:01:02L
793	*02	*34	*40	*56	*01	*15							SSP	
794	*02	*34	*40	*56	*01	*15	*02:01:01	*34:01:01	*40:02:01	*56:02:01	*01:02:01	*15:02:01	SSP SSO NGS RT-PCR	
2344							*02:01:01	*34:01:01	*40:02:01	*56:02:01	*01:02:01	*15:02:01	NGS	
2400	*02	*34	*40	*56	*01	*15	*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSO NGS	
2847	*02	*34	*40	*56	*01	*15							SSO	
3135							*02:01	*34:01	*40:02	*56:02	*01:02	*15:02		A*02:01L
3511							*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSP SSO	
3519	*02	*34	*40	*56	*01	*15	*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSP NGS RT-PCR	
3753	*02	*34	*40	*56	*01	*15							SSO	
3966	*02	*34	*40	*56	*01	*15							SSP	
4079	*02	*34	*40	*56	*01	*15	*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSP SSO NGS	
4251	*02	*34	*40	*56	*01	*15	*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSO NGS	
4337							*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SBT NGS	
4492	*02	*34	*40	*56	*01	*15	*02:01:01	*34:01:01:01	*40:02:01	*56:02:01	*01:02:01	*15:02:01:01	SSP SSO NGS	
5130	*02	*34	*40	*56	*01	*15	*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSO NGS	
5133							*02:01:01	*34:01:01:01	*40:01:02:01	*56:02:01	*01:02:01	*15:02:01	NGS	
5214	*02	*34	*40 (B61)	*56	*01	*15							RT-PCR	
5219	*02	*34	*40	*56	*01	*15							SSO	
5462	*02	*34	*40	*56	*01	*15	NT	NT	NT	NT	NT	NT	SSO	
5488							*02:01:01	*34:01:01	*40:02:01	*56:02:01	*01:02:01	*15:02:01	SSO SBT NGS	
8021							*02:01	*34:01	*40:02	*56:02	*01:02	*15:02		
8029	*02	*34	*40	*56	*01	*15							SSO	
8042	*02	*34	*40	*56									SSO	
8068	*02	*34	*40	*56	*01	*15							SSO	
8086							*02:01	*34:01	*40:02	*56:02	*01:02	*15:02	SSO SBT	

## CELL EXCHANGE #411

The results for Cell Exchange #411 are summarized in Table 7 and Table 8. Molecular typing results for individual laboratories are listed in Tables 9 -12 for each sample and individual serological results for each sample are listed

in Table 13. The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

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**Cell 1641.** The reported consensus for this cell from a Hispanic donor is A\*01:01(A1)-A\*69:01(A28)-B\*18:01(B18)-B\*55:01(B55)-C\*01:02-C\*12:03. Likely associations present in this cell are A\*01:01-B\*18:01-C\*12:03 and A\*69:01-B\*55:01-C\*01:02, observed in Hispanics, with respective HF = 0.00051 and 0.00253. Good agreement (100%) was achieved among DNA labs in the reporting of high and low resolutions class I results. Among labs reporting at high resolution, 5 labs assigned A\*69:01:01:01, 4 labs assigned A\*01:01:01:01, B\*18:01:01, C\*01:02:01, and C\*12:03:01:01. B\*55:01:01 was reported by 3 labs. A1 (100%), A28 (A69) (100%), B18 (100%), and B55 (83%) were well detected by serology.

**Cell 1642.** The reported consensus for this cell from a Hispanic donor is A\*02:01(A2)-A\*29:02(A29)-B\*44:03(B44)-B\*51:13(B51)-C\*15:02-C\*16:01. From family studies, the class I haplotypes present in this cell were determined to be A\*02:01-B\*51:13-C\*15:02 and A\*29:02-B\*44:03-C\*16:01. This cell has been examined a number of times in the Exchange over the years as cells 1562 (2016), 1496 (2013), 1434 (2011), 1371 (2009), 1340 (2008), 1302 (2007), and 1271 (2006). In this present retyping, good agreement (100%) was achieved in the class I assignments for this cell among labs reporting high and low resolution results. Among labs reporting by high resolution, A\*02:01:01, A\*29:02:01:01, B\*44:03:01, C\*15:02:01:01, and C\*16:01:01:01 were each assigned by 4 labs, while B\*51:13:01 was reported by 5 labs. Good agreement was also achieved among serology labs, as labs reported A2 (100%), A29 (100%), B44 (100%), and B51 (83%).

**Cell 1643.** The reported consensus for this cell from a Filipino donor is A\*24:02(A24)-A\*24:07-B\*15:02(B15)-B\*57:01(B57)-C\*04:01-C\*06:02. One likely association present in this cell is A\*24:07-B\*15:02, observed in Asian populations, with HF = 0.00091. Interestingly, the other likely association present, A\*24:02-B\*57:01, is not observed in Asians, but in European Caucasians, with HF = 0.00232. Good (100%) agreement was achieved among DNA labs in the reporting of class I specificities. Among the labs reporting by high resolution, 4 labs reported A\*24:07:01 and B\*57:01:01 and 3 labs reported A\*24:02:01, B\*15:02:01, C\*04:01:01, and C\*06:02:01:01. A24 (100%), B15 (B75) (80%), and B57 (80%) were assigned by serology. Two labs assigned B62 as the B15 split, instead of B75.

**Cell 1644.** The reported consensus for this cell from a Caucasian donor is A\*01:01(A1)-A\*02:01(A2)-B\*08:01(B8)-B\*44:02(B44)-C\*05:01-C\*07:01. Likely associations present in this cell are A\*01:01-B\*08:01-C\*07:01 and A\*02:01-B\*44:02-C\*05:01. Each are commonly observed across all populations, with respective HF = 0.09556 and 0.05370, in Caucasians. Good agreement (100%) was achieved among labs in the reporting of high and low resolutions typing results for this cell. Among labs reporting by high resolution, A\*01:01:01:01, A\*02:01:01, B\*08:01:01:01, B\*44:02:01, C\*05:01:01:02, and C\*07:01:01:06 were each reported by 3 labs. Good agreement was also achieved among serology labs as A1, A2, B8, and B44 were each reported in complete consensus.

**Table 7. Summary of the 411<sup>th</sup> Cell Exchange (Cell #1641-1644)**

**DNA typing**

<b>Cell 1641</b>	
18 low/13 high labs - A	%(n)
A*01:01:01:01	31(4)
A*01:01:01G	15(2)
A*01:01	54(7)
A*01	100(18)
18 low/13 high labs - A	%(n)
A*69:01:01:01	38(5)
A*69:01	62(8)
A*69	100(18)
18 low/13 high labs - B	%(n)
B*18:01:01	31(4)
B*18:01:01G	15(2)
B*18:01	54(7)
B*18	100(18)
18 low/13 high labs - B	%(n)
B*55:01:01:01	8 (1)
B*55:01:01	15(2)
B*55:01:01G	15(2)
B*55:01	62(8)
B*55	100(18)
17 low/13 high Labs - C	%(n)
C*01:02:01	31(4)
C*01:02:01G	8 (1)
C*01:02	61(8)
C*01	100(17)
17 low/13 high Labs - C	%(n)
C*12:03:01:01	31(4)
C*12:03:01G	8 (1)
C*12:03	61(8)
C*12	100(17)

<b>Cell 1642</b>	
18 low/13 high labs - A	%(n)
A*02:01:01:01	23(3)
A*02:01:01	8 (1)
A*02:01:01G	8 (1)
A*02:01	61(8)
A*02	100(18)
18 low/13 high labs - A	%(n)
A*29:02:01:01	31(4)
A*29:02:01G	8 (1)
A*29:02	61(8)
A*29	100(18)
18 low/14 high labs - A	%(n)
B*44:03:01:01	14 (2)
B*44:03:01	14 (2)
B*44:03:01G	7 (1)
B*44:03	64(9)
B*44	100(18)
18 low/15 high labs - B	%(n)
B*51:13:01	33(5)
B*51:13	67(10)
B*51	100(18)
17 low/13 high Labs - C	%(n)
C*15:02:01:01	31(4)
C*15:02:01G	15(2)
C*15:02	54(7)
C*15	100(17)
17 low/13 high Labs - C	%(n)
C*16:01:01:01	31(4)
C*16:01:01G	15 (2)
C*16:01	54(7)
C*16	100(17)

<b>Cell 1643</b>	
16 low/10 high labs - A	%(n)
A*24:02:01:01	20(2)
A*24:02:01	10(1)
A*24:02:01G	10(1)
A*24:02P	10(1)
A*24:02	50(5)
A*24	100(16)
15 low/12 high labs - A	%(n)
A*24:07:01	33(4)
A*24:07	67(8)
16 low/12 high labs - B	%(n)
B*15:02:01:01	17(2)
B*15:02:01	8 (1)
B*15:02:01G	8 (1)
B*15:02	67(8)
B*15(B75)	12(2)
B*15	88(14)
16 low/10 high labs - B	%(n)
B*57:01:01:01	10(1)
B*57:01:01	30(3)
B*57:01	60(6)
B*57	16(100)
15 low/10 high Labs - C	%(n)
C*04:01:01	30(3)
C*04:01P	10(1)
C*04:01	60(6)
C*04	100(15)
15 low/10 high Labs - C	%(n)
C*06:02:01:01	30(3)
C*06:02:01G	10(1)
C*06:02	60(6)
C*06	100(15)

<b>Cell 1644</b>	
16 low/10 high labs - A	%(n)
A*01:01:01:01	30(3)
A*01:01:01G	10(1)
A*01:01	60(6)
A*01	100(16)
16 low/10 high labs - A	%(n)
A*02:01:01:01	20(2)
A*02:01:01	10(1)
A*02:01:01G	10(1)
A*02:01	60(6)
A*02	100(16)
16 low/10 high labs - A	%(n)
B*08:01:01:01	30(3)
B*08:01:01G	20(2)
B*08:01	50(5)
B*08	100(16)
16 low/10 high labs - A	%(n)
B*44:02:01:01	10(1)
B*44:02:01	20(2)
B*44:02:01G	20(2)
B*44:02	50(5)
B*44	100(16)
15 low/10 high labs - C	%(n)
C*05:01:01:02	30(3)
C*05:01:01G	10(1)
C*05:01	60(6)
C*05	100(15)
15 low/11 high labs - C	%(n)
C*07:01:01:06	27(3)
C*07:01:01G	18(2)
C*07:01	55(6)
C*07	100(15)

**Table 8. Summary of the 411<sup>th</sup> Cell Exchange (Cell #1641 - 1644)**

**Serological typing**

(Hispanic) <b>Cell 1641</b> (12 Samples Typed)	
A1	100.0%
A69	75.0%
A28	25.0%
	[100.0%]
B18	100.0%
B55	83.3%
B22	16.7%
	[100.0%]
Cw1	16.7%
Bw6	91.7%
<b>Others Found</b>	
A2	8.3%
Cw4	8.3%
Cw3	8.3%
Cw7	8.3%

(Hispanic) <b>Cell 1642</b> (12 Samples Typed)	
A2	100.0%
	[100.0%]
A29	100.0%
	[100.0%]
B44	100.0%
	[100.0%]
B51	83.3%
B5	8.3%
	[91.7%]
Bw4	91.7%
<b>Others Found</b>	
Cw15	8.3%
Cw4	8.3%
Cw6	8.3%

(Filipino) <b>Cell 1643</b> (10 Samples Typed)	
A24	100.0%
	[100.0%]
B75	60.0%
B62	20.0%
B15	20.0%
	[100.0%]
B57	80.0%
B17	10.0%
	[90.0%]
Cw4	40.0%
	[40.0%]
Cw6	30.0%
	[30.0%]
Bw4	90.0%
Bw6	90.0%
<b>Others Found</b>	
B58	10.0%
Cw3	10.0%

(Caucasian) <b>Cell 1644</b> (10 Samples Typed)	
A1	100.0%
A2	100.0%
	[100.0%]
B8	100.0%
B44	100.0%
	[100.0%]
Cw5	30.0%
	[30.0%]
Cw7	40.0%
Bw4	90.0%
Bw6	90.0%
<b>Others Found</b>	

**Table 9. Individual laboratory results for Cell #1641**

Low Resolution														
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C		Method	Other Alleles
278	*01	*69	*18	*55	*01	*12	*01:01	*69:01	*18:01	*55:01	*01:02	*12:03		
725	*01	*69	*18	*55	*01	*12							SSO	
731	*01	*69	*18	*55	*01	*12	*01:01:01G	*69:01:01:01	*18:01:01G	*55:01:01G	*01:02	*12:03	SSP SSO SBT	A*01:100 A*69:02
745							*01:01:01:01	*69:01:01:01	*18:01:01	*55:01:01	*01:02:01	*12:03:01:01	SSP SBT NGS	
747	*01	*69	*18	*55	*01	*12	*01:01:01:01	*69:01:01:01	*18:01:01	*55:01:01	*01:02:01	*12:03:01:01	SSP SSO NGS	
762							*01:01:01:01	*69:01:01:01	*18:01:01	*55:01	*01:02:01	*12:03:01:01	NGS	
771	*01	*69	*18	*55	*01	*12	*01:01	*69:01	*18:01	*55:01	*01:02	*12:03	SSP SSO	
774	*01	*69	*18	*55	*01	*12							SSP SSO	
3186	*01	*69	*18	*55	*01	*12							SSO	
														A*01:248Q A*01:251 A*01:252 A*01:274 A*01:276 A*01:277 A*01:280 A*01:281 A*01:291 A*01:295 A*01:296 B*18:159 B*18:160 B*55:91 B*55:97N C*01:164 C*01:172 C*01:173 C*01:174 A*01:234 A*01:237 B*18:17N B*18:131 B*18:144 B*18:145 B*55:85 C*01:85 C*01:127 C*01:142 C*01:150 C*01:151 C*12:143 C*12:220 C*12:245 C*12:262
3545	*01	*69	*18	*55	*01	*12	*01:01	*69:01	*18:01	*55:01	*01:02	*12:03	SSO SBT	
3632	*01	*69	*18	*55	*01	*12	*01:01	*69:01	*18:01	*55:01	*01:02	*12:03	SSP SSO	
3808	*01	*69	*18	*55	*01	*12							SSP SBT	
4079	*01	*69	*18	*55	*01	*12	*01:01	*69:01	*18:01	*55:01	*01:02	*12:03	SSP SSO	B*55:02 C*01:40 C*01:44
4251	*01	*69	*18	*55	*01	*12	*01:01:01G	*69:01	*18:01:01G	*55:01:01G	*01:02:01G	*12:03:01G	SSO SBT	
5133							*01:01:01:01	*69:01:01:01	*18:01:01	*55:01:01:01	*01:02:01	*12:03:01:01	NGS	
5214	*01	*69	*18	*55	*01	*12							SSO	
5462	*01	*69	*18	*55	*01	*12	*01:01	*69:01	*18:01	*55:01	*01:02	*12:03	SSO NGS	
5642	*01	*69	*18	*55	*01	*12							SSP	
6649	*01	*69	*18	*55									SSO	
8001	*01	*69	*18	*55	*01	*12							SSO	
8043	*01	*69	*18	*55	*01	*12	*01:01	*69:01	*18:01	*55:01	*01:02	*12:03	SSP SSO	

**Table 10. Individual laboratory results for Cell #1642**

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01		
725	*02	*29	*44	*51	*15	*16							SSO	
731	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03:01G	*51:13:01	*15:02:01G	*16:01:01G	SSP SSO SBT	
745							*02:01:01:01	*29:02:01:01	*44:03:01	*51:13:01	*15:02:01:01	*16:01:01:01	SSP SBT NGS	
747	*02	*29	*44	*51	*15	*16	*02:01:01:01	*29:02:01:01	*44:03:01:01	*51:13:01	*15:02:01:01	*16:01:01:01	SSP SSO NGS	
762							*02:01:01:01	*29:02:01:01	*44:03:01:01	*51:13:01	*15:02:01:01	*16:01:01:01	NGS	
771	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSP SSO	
774	*02	*29	*44	*51	*15	*16				*51:13			SSP SSO	
3186	*02	*29	*44	*51	*15	*16							SSO	
														A*02:742 A*02:744 A*02:753 A*02:761 A*02:762 A*02:763 A*02:765 A*02:776 A*02:779 A*02:786 A*02:792N A*02:795 A*02:810 A*02:812 A*02:819 A*29:119 A*29:120 A*29:121 B*44:298 B*44:302 B*44:309N A*29:95 A*29:100 C*15:87 C*16:111 C*16:112 C*16:118 A*02:629 A*02:642 A*02:665 A*02:686 A*02:689 A*02:704 A*02:716 A*02:719 A*02:722 A*02:724 A*02:740 C*15:154 C*15:176 C*16:146
3545	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSO SBT	
3632	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSP SSO	
3808	*02	*29	*44	*51	*15	*16			*44:03	*51:13			SSP SBT	
4079	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSP SSO	
4251	*02	*29	*44	*51	*15	*16	*02:01:01G	*29:02:01G	*44:03	*51:13	*15:02:01G	*16:01:01G	SSO SBT	
5133							*02:01:01	*29:02:01:01	*44:03:01	*51:13:01	*15:02:01:01	*16:01:01:01	NGS	
5214	*02	*29	*44	*51	*15	*16							SSO	
5462	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSO NGS	
5642	*02	*29	*44	*51	*15	*16							SSP	
6649	*02	*29	*44	*51									SSO	
8001	*02	*29	*44	*51	*15	*16							SSO	
8043	*02	*29	*44	*51	*15	*16	*02:01	*29:02	*44:03	*51:13	*15:02	*16:01	SSP SSO	

**Table 11. Individual laboratory results for Cell #1643**

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*24	*24	*15	*57	*04	*06	*24:02	*24:07	*15:02	*57:01	*04:01	*06:02		
725	*24		*15	*57	*04	*06							SSO	
731	*24	*24	*15	*57	*04	*06	*24:02:01G	*24:07:01	*15:02:01	*57:01:01	*04:01	*06:02	SSP SSO SBT	
745							*24:02:01:01	*24:07:01	*15:02:01:01	*57:01:01:01	*04:01:01	*06:02:01:01	SSP SBT NGS	
747	NT						NT							
762							*24:02:01:01	*24:07:01	*15:02	*57:01:01:01	*04:01:01	*06:02:01:01	NGS	
771	*24	*24	*15	*57	*04	*06	*24:02	*24:07	*15:02	*57:01	*04:01	*06:02	SSP SSO	
774	*24	*24	*15	*57	*04	*06		*24:07	*15:02				SSP SSO	A*24:112 A*24:131 A*24:288
3186	*24	*24	*15	*57	*04	*06							SSO	B*15:214 B*15:223 B*15:302N
3545	*24	*24	*15	*57	*04	*06	*24:02	*24:07	*15:02	*57:01	*04:01	*06:02	SSO SBT	C*04:308 C*04:320 C*04:321 C*04:322 C*04:327 C*04:330 C*04:339 C*04:348 C*04:358 A*24:352 A*24:353 A*24:402 C*04:30 C*04:82 C*04:226 C*04:275 C*04:277 C*06:83 C*06:213 C*06:214 A*24:418 A*24:419 A*24:422 B*57:103 C*04:298 C*04:306 C*06:227 C*06:228 C*06:236 C*06:239 C*06:244
3632	*24	*24	*15	*57	*04	*06	*24:02	*24:07	*15:02	*57:01	*04:01	*06:02	SSP SSO	
3808	*24	*24	*15	*57	*04	*06		*24:07	*15:02:01G				SSP SBT	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP SSO	
4251	*24	*24	*15	*57	*04	*06	*24:02P	*24:07	*15:02	*57:01	*04:01P	*06:02:01G	SSO SBT	
5133							*24:02:01	*24:07:01	*15:02:01:01	*57:01:01:01	*04:01:01	*06:02:01:01	NGS	
5214	*24	*24	*15(B75)	*57	*04	*06							SSO	
5462	*24	*24	*15	*57	*04	*06	*24:02	*24:07	*15:02	*57:01	*04:01	*06:02	SSO NGS	
5642	*24		*15	*57	*04	*06							SSP	
6649	*24		*15	*57									SSO	
8001	*24		*15(B75)	*57	*04	*06							SSO	
8043	*24		*15	*57	*04	*06							SSP SSO	



**Table 12. Individual laboratory results for Cell #1644**

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*01	*02	*08	*44	*05	*07	*01:01	*02:01	*08:01	*44:02	*05:01	*07:01		
725	*01	*02	*08	*44	*05	*07							SSO	
731	*01	*02	*08	*44	*05	*07	*01:01	*02:01	*08:01:01G	*44:02:01G	*05:01	*07:01	SSP SSO SBT	
745							*01:01:01:01	*02:01:01:01	*08:01:01:01	*44:02:01	*05:01:01:02	*07:01:01:06	SSP SBT NGS	
747	NT						NT							
762							*01:01:01:01	*02:01:01:01	*08:01:01:01	*44:02:01:01	*05:01:01:02	*07:01:01:06	NGS	
771	*01	*02	*08	*44	*05	*07	*01:01	*02:01	*08:01	*44:02	*05:01	*07:01	SSP SSO	
774	*01	*02	*08	*44	*05	*07							SSP SSO	
3186	*01	*02	*08	*44	*05	*07							SSO	
														A*01:248Q A*01:251 A*01:252 A*01:274 A*01:276 A*01:277 A*01:280 A*01:281 A*01:291 A*01:295 A*01:296 A*02:742 A*02:744 A*02:753 A*02:761 A*02:762 A*02:763 A*02:765 A*02:776 A*02:779 A*02:786 A*02:792N A*02:795 A*02:810 A*02:812 A*02:819 B*08:207 B*08:221 B*44:292 B*44:321 C*05:187 C*07:615 C*07:617 C*07:618 C*07:619 C*07:657 C*07:682 C*07:687 C*07:696 C*07:721 C*07:06 C*05:145 C*05:153N C*07:18 C*07:343+
3545	*01	*02	*08	*44	*05	*07	*01:01	*02:01	*08:01	*44:02	*05:01	*07:01	SSO SBT	
3632	*01	*02	*08	*44	*05	*07	*01:01	*02:01	*08:01	*44:02	*05:01	*07:01	SSP SSO	
3808	*01	*02	*08	*44	*05	*07						*07:01:01G	SSP SBT	
4079	NT						NT						SSP SSO	
4251	*01	*02	*08	*44	*05	*07	*01:01:01G	*02:01:01G	*08:01:01G	*44:02:01G	*05:01:01G	*07:01:01G	SSO SBT	
5133							*01:01:01:01	*02:01:01	*08:01:01:01	*44:02:01	*05:01:01:02	*07:01:01:06	NGS	
5214	*01	*02	*08	*44	*05	*07							SSO	
5462	*01	*02	*08	*44	*05	*07	*01:01	*02:01	*08:01	*44:02	*05:01	*07:01	SSO NGS	
5642	*01	*02	*08	*44	*05	*07							SSP	
6649	*01	*02	*08	*44									SSO	
8001	*01	*02	*08	*44	*05	*07							SSO	
8043	*01	*02	*08	*44	*05	*07							SSP SSO	

**Table 13. Individual laboratory results for Cell #1641-1644 by serology**

Investigator	Days Old	Cell No 1641 (Hispanic)									Cell No 1642 (Hispanic)						Cell No 1643 (Filipino)						Cell No 1644 (Caucasian)													
		Viab %	A1	A69	B18	B55	Cw1	Bw6	OTHERS	Viab %	A2	A29	B44	B51	Bw4	OTHERS	Viab %	A24	B15	B57	Cw4	Cw6	Bw4	Bw6	OTHERS	Viab %	A1	A2	B8	B44	Cw5	Cw7	Bw4	Bw6	OTHERS	
Cecka, J. Mic	6	>95	+	+	+	+		+		>95	+	+	+	+	+		>95	+	B75	+			+	+		>95	+	+	+	+			+	+		
D'Orsogna , L		85	+	+	+	+	+	+		90	+	+	+	+	+		90	+	B75	+	+		+	+		90	+	+	+	+	+	+	+	+	+	
Fort, Marylis	3	95	+	+	+	+		+		92	+	+	+	+	+		NT									NT										
Georgiou, Dor		85	+	+	+	+		+		85	+	+	+	+	+		85	+	B75	+			+	+		85	+	+	+	+			+	+		
Latham, Katy	6	95	+	+	+	+		+		95	+	+	+	+	+		95	+	B75	+			+	+		95	+	+	+	+			+	+		
Loewenthal ,		80	+	+	+	+	+	+		85	+	+	+		+	Cw15	80	+	B75	+	+	+	+	+		80	+	+	+	+	+	+	+	+		
Permpikul, Ve	6	90	+	+	+	+		+		90	+	+	+	+	+		90	+	B75	+			+	+		90	+	+	+	+			+	+		
Renac, Virgin	3	100	+	A28	+	B22		+		100	+	+	+	+	+		100	+	+	+			+	+		100	+	+	+	+			+	+		
Shai, Isaac	7	92	+	A28	+	B22		+	Cw4, A2, Cw3, Cw7	90	+	+	+	+	+	Cw4	90	+	B62	+	+	+	+	+	Cw3	90	+	+	+	+	+	+	+	+	+	
Tabata, Lucas		90	+	A28	+	+				80	+	+	+	B5	Cw6	80	+	B62	B17	+	+				90	+	+	+	+		+					
Vidan-Jeras,	6	99	+	+	+	+		+		99	+	+	+	+	+		99	+	+	B58			+	+		100	+	+	+	+			+	+		
Villard, Jean	6	80	+	+	+	+		+		85	+	+	+	+	+																					

## SERUM EXCHANGE #569

The results for **Serum Exchange 569 (sera 1269 - 1272)**, are summarized in Tables 14 - 21 and individual laboratory results by method are listed

in Tables 22 - 34. Sera strongly positive to A29, A10, A2, and B13 were examined in this study.

1269	method	#labs	A29	A1	A26	A30	A36	B35	B53	B55	B49	B50	B42	B62	A43	B75	B54	B56	B67	A80	B77	B70	B71	B72	B63	B7	A2	B46
class I	NIH-Std	1	no consensus																									
	NIH-Ext	2	100%																									
	AHG	2	100%	50%	50%	50%		50%	50%	50%	50%	50%	50%									50%						
	Luminex	27	96%	100%	100%	81%	100%	100%	100%	100%	96%	96%	100%	93%	96%	96%	74%	100%	100%	100%	96%		96%	93%	93%	74%	70%	67%
	Flow	3	no specificities assigned																									
	C1q	2	100%	100%			100%								50%	50%												
	Other	2	50%	50%	50%	50%	50%	50%	50%	50%	50%						50%											
1269	method	#labs	B51	B57	B78	B82	A69	B58	A34	A74	A31	B41	B52	B59	B81	A33	A68	Cw10	Cw9	B37	A23	B39	B76	A24	A66	B13	B38	Cw4
	Luminex	27	67%	63%	63%	63%	59%	59%	56%	56%	52%	52%	52%	52%	52%	48%	48%	44%	44%	41%	37%	37%	33%	30%	26%	22%	22%	22%

1269	method	#labs	DR11	DR12	DR13	DR14	DR1403	DR8	DR9	DR10	DR17	DR18	DR52	DR53	DR7	DQ5	DQ2
class II	NIH-Ext	1	undetermined														
	Luminex	25	96%	92%	96%	96%	20%	96%	96%	92%	88%	88%	84%	84%	44%	24%	20%
	Flow	3	no specificities assigned														
	C1q	1	no consensus														
	Other	2	50%	50%	50%	50%		50%	50%	50%	50%	50%	50%				

For **Serum 1269**, strong A29 positivity was reported by all methods, except flow. Additional reactivity to A1, A26, A36, and A43, was detected by various methods, with Luminex reporting each by > 90% consensus. In addition, reactivity to a number of 5C and 8C specificities was reported by anti-globulin, Luminex, and C1q. Reactivity to a number of DR specificities was

also reported by Luminex and Luminex PRA, including DR11, DR12, DR13, DR14, DR8, DR9, and DR10. Each were reported by >90% of Luminex labs. Allele specific DR1403 reactivity was reported by a few (20%) Luminex labs as well.

1270	method	#labs	A25	B57	B58	B17	A26	A66	A6601	A6602	A11	A1101	A1102	A34	A33	A68	A29	A31	A32	A74	A2	A203	A43	B63	A69	
class I	NIH-Std	1	no consensus																							
	NIH-Ext	2	50%																							
	AHG	2		50%		50%	50%	50%			50%															
	Luminex	27	100%	100%	100%		100%	85%	33%	33%	81%	33%	33%	93%	93%	93%	93%	89%	100%	78%	100%	30%	96%	81%	67%	
	Flow	3	no specificities assigned																							
	C1q	2	50%	100%	100%																					
	Other	2	50%	50%	50%		50%	50%			50%			50%	50%	50%	50%	50%	50%	50%	50%					

1270	method	#labs	DQ7	DQ8	DR7	DQ9	DR9	DR52	DR12	
class II	NIH-Ext	1	undetermined							
	Luminex	25	100%	100%	96%	96%	92%	68%	60%	
	Flow	3	no specificities assigned							
	C1q	1	no consensus							
	Other	2	50%	50%	50%	50%	50%			

For **Serum 1270**, anti-A25, -B17 (B57, B58), and -A26 reactivity was reported by various methods, with Luminex reporting each in complete consensus. Additional reactivity to A29, A2, and reactivity to a number of 10C specificities was also reported by Luminex and Luminex PRA. In addition, a num-

ber of Luminex labs reported allele specific A\*66:01, A\*66:02, A\*11:01, A\*11:02, and A\*02:03 reactivity. Anti-DQ7, -DQ8, -DR7, -DQ9, and -DR9 reactivity was reported by Luminex and Luminex PRA, with Luminex reporting each by a consensus of > 90%.

1271	method	#labs	A2	A68	A69	A28	B57	B58	B64	B18	B38	B45	B54	B55	B65	B67	B35	B13	B37	B47	B49	B56	B59	B27	B2708	B50	B51	B52
class I	NIH-Std	1	no consensus																									
	NIH-Ext	2	100%				100%	50%																				
	AHG	2	100%	100%		50%	100%	100%		50%				50%	50%		50%	50%						50%		50%		
	Luminex	27	100%	100%	100%		100%	100%	100%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	93%	48%	93%	93%	93%
	Flow	3	no specificities assigned																									
	C1q	2	50%	50%	50%	50%																						
	Other	2	50%	50%	50%		50%	50%		50%		50%	50%				50%					50%						
1271	method	#labs	B72	B75	B62	B44	B53	B63	B71	B46	B77	B76	B78	B7801	B39	B3901	B82	A24	A2403	B73	Cw5	A23	A33	Bw4	A203			
	AHG	2			50%	50%																						
	Luminex	27	93%	93%	93%	93%	93%	93%	93%	89%	89%	85%	85%	26%	70%	37%	70%	63%	22%	41%	41%	33%	33%	33%	30%			
	Other	2	50%		50%								50%															

1271	method	#labs	DR11	DR13	DR7	DQ2	DR14	DR17	DR18	DR52	DPw2	DPw3	DPw6	DP18	DP28	DP14	DR1403	DP17	DP9	DPw4	DP402	DP10	DP20	
class II	NIH-Ext	1	undetermined																					
	Luminex	25	100%	100%	100%	100%	96%	96%	96%	96%	92%	92%	92%	88%	88%	80%	24%	80%	80%	72%	40%	64%	64%	
	Flow	3	no specificities assigned																					
	C1q	1	no consensus																					
	Other	2	50%	50%	50%	50%	50%	50%	50%	50%														

Strong class I reactivity was reported in **Serum 1271**, with all methods, except Flow, reporting anti-A2 reactivity. Additional reactivity to A28 (A68, A69), B17 (B57, B58), as well as reactivity to a number of 5C, 7C, and 8C specificities was reported by various methods, with Luminex reporting many of the specificities with >90% consensus. Allele specific B\*27:08, B\*78:01, B\*39:01, A\*24:03, and A\*02:03 reactivity was also reported by Luminex. For

class II, anti-DR11, -DR17, -DR18, and -DR52 reactivity was reported by Luminex (>90%), Luminex PRA, and C1q. Additional reactivity to DR13, DR7, DQ2, and DR14 was also reported by Luminex and PRA. In addition, Luminex and C1q detected reactivity to a number of DP specificities, including anti-DP2, -DP3, -DP4, -DP18, and -DP28 reactivity. Allele specific DR1403 and DP402 reactivity was also reported by some Luminex labs.

1272	method	#labs	B13	B49	B60	B61	B41	B47	B44	B45	B27	B2708	B50	B7	B48	B62	B75	B72	B53			
class I	NIH-Std	1	no consensus																			
	NIH-Ext	2	100%	50%	50%																	
	AHG	2	100%	50%	50%	50%	50%	50%	50%	50%	50%		50%		50%							
	Luminex	27	100%	100%	96%	93%	100%	100%	100%	100%	89%	41%	100%	93%	67%	96%	96%	89%	93%			
	Flow	3	no specificities assigned																			
	C1q	2	100%																			
	Other	2	50%	50%	50%	50%	50%	50%	50%	50%			50%	50%		50%	50%	50%	50%			
1272	method	#labs	B51	B52	B63	B77	B76	B38	B71	B35	B59	B81	B8101	B57	B37	B39	B46	B56	B58	B78		
	Luminex	27	81%	78%	70%	96%	93%	89%	81%	78%	74%	70%	22%	63%	59%	44%	44%	44%	33%	22%		
	Other	2	50%	50%	50%																	

1272	method	#labs	DR4	DR53		
class II	NIH-Ext	1	undetermined			
	Luminex	27	100%	92%		
	Flow	2	no specificities assigned			
	C1q	1	no consensus			
	Other	2	50%			

Strong anti-B13 reactivity was reported in **Serum 1272** by all methods, except flow. Additional reactivity to B44, B45, as well as reactivity to a number of 5C and 7C specificities, was reported by various methods. In addition, allele specific B\*27:08 and B\*81:01 reactivity was reported by a few Luminex

labs. For class II, anti-DR4 reactivity was reported by Luminex and 1 lab reporting by Luminex PRA. Additional anti-DR53 reactivity was also reported by > 90% of Luminex labs.

**NEXT MAILING DATE: August 7, 2019**

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**Table 14. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by NIH-Standard and NIH-Extended - class I**

Method: NIH-Standard											
<b>*** Serum 1269 ***</b>			<b>*** Serum 1270 ***</b>			<b>*** Serum 1271 ***</b>			<b>*** Serum 1272 ***</b>		
1 typing Lab			1 typing Lab			1 typing Lab			1 typing Lab		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
no consensus			no consensus			no consensus			no consensus		

Method: NIH-Extended											
<b>*** Serum 1269 ***</b>			<b>*** Serum 1270 ***</b>			<b>*** Serum 1271 ***</b>			<b>*** Serum 1272 ***</b>		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A29	100%	100%	A25	50%	67%	A2	100%	100%	B13	100%	100%
						B57	100%	100%	B60	50%	75%
						B58	50%	67%	B49	50%	67%

**Table 15. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by Antiglobulin - class I**

Method: Antiglobulin											
*** Serum 1269 ***			*** Serum 1270 ***			*** Serum 1271 ***			*** Serum 1272 ***		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A29	100%	100%	A66	50%	100%	A2	100%	100%	B13	100%	100%
A26	50%	100%	B17	50%	100%	A68	100%	100%	B41	50%	100%
B42	50%	100%	A26	50%	80%	B57	100%	100%	B45	50%	100%
B49	50%	100%	B57	50%	50%	B58	100%	67%	B47	50%	100%
B50	50%	100%	A11	50%	27%	A28	50%	100%	B49	50%	100%
B53	50%	100%				B13	50%	100%	B50	50%	100%
B55	50%	100%				B18	50%	100%	B60	50%	100%
B70	50%	100%				B27	50%	100%	B61	50%	100%
A1	50%	90%				B35	50%	100%	B44	50%	92%
A30	50%	88%				B50	50%	100%	B48	50%	67%
B35	50%	80%				B62	50%	100%	B27	50%	60%
B62	50%	80%				B65	50%	100%			
						B44	50%	80%			



**Table 16. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by Other and Flow Cytometry - class I**

Method: Other											
*** Serum 1269 ***			*** Serum 1270 ***			*** Serum 1271 ***			*** Serum 1272 ***		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A1	50%	100%	A11	50%	100%	A2	50%	100%	B13	50%	100%
A26	50%	100%	A2	50%	100%	A68	50%	100%	B41	50%	100%
A29	50%	100%	A25	50%	100%	A69	50%	100%	B44	50%	100%
A30	50%	100%	A26	50%	100%	B18	50%	100%	B45	50%	100%
A36	50%	100%	A29	50%	100%	B35	50%	100%	B47	50%	100%
B35	50%	100%	A31	50%	100%	B45	50%	100%	B49	50%	100%
B49	50%	100%	A32	50%	100%	B54	50%	100%	B50	50%	100%
B50	50%	100%	A33	50%	100%	B56	50%	100%	B51	50%	100%
B53	50%	100%	A34	50%	100%	B57	50%	100%	B52	50%	100%
B54	50%	100%	A66	50%	100%	B58	50%	100%	B53	50%	100%
B55	50%	100%	A68	50%	100%	B62	50%	100%	B60	50%	100%
			A74	50%	100%	B72	50%	100%	B61	50%	100%
			B57	50%	100%	B78	50%	100%	B62	50%	100%
			B58	50%	100%				B63	50%	100%
									B7	50%	100%
									B72	50%	100%
									B75	50%	100%
									B81	50%	100%

Method: Flow Cytometry											
*** Serum 1269 ***			*** Serum 1270 ***			*** Serum 1271 ***			*** Serum 1272 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
no specificities assigned			no specificities assigned			no specificities assigned			no specificities assigned		

**Table 17. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by Luminex - class I**

Method: Luminex											
*** Serum 1269 ***			*** Serum 1270 ***			*** Serum 1271 ***			*** Serum 1272 ***		
27 typing Labs			27 typing Labs			27 typing Labs			27 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A1	100%	100%	A2	100%	100%	A2	100%	100%	B13	100%	100%
A26	100%	100%	A25	100%	100%	A68	100%	100%	B41	100%	100%
A36	100%	100%	A26	100%	100%	A69	100%	100%	B44	100%	100%
B35	100%	100%	A32	100%	100%	B57	100%	100%	B45	100%	100%
B42	100%	100%	B57	100%	100%	B58	100%	100%	B47	100%	100%
B53	100%	100%	B58	100%	100%	B64	100%	100%	B49	100%	100%
B55	100%	100%	A43	96%	100%	B18	96%	100%	B50	100%	100%
B56	100%	100%	A34	93%	100%	B38	96%	100%	B60	96%	100%
B67	100%	100%	A33	93%	75%	B45	96%	100%	B62	96%	100%
A80	100%	67%	A68	93%	60%	B54	96%	100%	B77	96%	100%
A29	96%	100%	A29	93%	17%	B55	96%	100%	B75	96%	80%
A43	96%	100%	A31	89%	100%	B65	96%	100%	B61	93%	100%
B49	96%	100%	A66	85%	83%	B67	96%	100%	B76	93%	100%
B50	96%	100%	B63	81%	100%	B35	96%	75%	B53	93%	50%
B71	96%	100%	A11	81%	50%	B13	96%	67%	B7	93%	50%
B77	96%	100%	A74	78%	100%	B37	96%	50%	B72	89%	100%
B75	96%	80%	A69	67%	100%	B47	96%	50%	B27	89%	67%
B62	93%	100%	A1101	33%	100%	B49	96%	50%	B38	89%	50%
B72	93%	100%	A1102	33%	100%	B56	96%	50%	B51	81%	80%
B63	93%	67%	A6601	33%	100%	B59	96%	50%	B71	81%	50%
A30	81%	88%	A6602	33%	100%	B27	93%	100%	B52	78%	100%
B7	74%	75%	A203	30%	100%	B50	93%	100%	B35	78%	50%
B54	74%	50%				B51	93%	100%	B59	74%	50%
A2	70%	100%				B52	93%	100%	B63	70%	100%
B46	67%	50%				B72	93%	100%	B81	70%	50%
B51	67%	40%				B75	93%	100%	B48	67%	50%
B57	63%	100%				B62	93%	67%	B57	63%	100%
B78	63%	100%				B44	93%	50%	B37	59%	100%
B82	63%	100%				B53	93%	50%	B39	44%	100%
A69	59%	100%				B63	93%	50%	B46	44%	100%
B58	59%	100%				B71	93%	50%	B56	44%	100%
A34	56%	100%				B46	89%	100%	B2708	41%	100%
A74	56%	100%				B77	89%	100%	B58	33%	100%
A31	52%	100%				B76	85%	100%	B78	22%	100%
B41	52%	100%				B78	85%	100%	B8101	22%	100%

**Table 17. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by Luminex - class I**

<b>Method: Luminex - cont.</b>											
<b>*** Serum 1269 ***</b>			<b>*** Serum 1270 ***</b>			<b>*** Serum 1271 ***</b>			<b>*** Serum 1272 ***</b>		
27 typing Labs			27 typing Labs			27 typing Labs			27 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
B52	52%	100%				B39	70%	100%			
B59	52%	100%				B82	70%	100%			
B81	52%	100%				A24	63%	100%			
A33	48%	100%				B2708	48%	100%			
A68	48%	100%				B73	41%	100%			
Cw10	44%	100%				Cw5	41%	100%			
Cw9	44%	100%				B3901	37%	100%			
B37	41%	100%				A23	33%	100%			
A23	37%	100%				A33	33%	100%			
B39	37%	100%				Bw4	33%	88%			
B76	33%	100%				A203	30%	100%			
A24	30%	100%				B7801	26%	100%			
A66	26%	100%				A2403	22%	100%			
B13	22%	100%									
B38	22%	100%									
Cw4	22%	100%									

**Table 18. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by C1q - class I**

Method: C1q											
<b>*** Serum 1269 ***</b>			<b>*** Serum 1270 ***</b>			<b>*** Serum 1271 ***</b>			<b>*** Serum 1272 ***</b>		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A1	100%	100%	B57	100%	100%	A2	50%	100%	B13	100%	100%
A29	100%	100%	B58	100%	100%	A68	50%	100%			
A36	100%	100%	A25	50%	100%	A69	50%	100%			
A43	50%	100%				B57	50%	100%			
B75	50%	100%				B58	50%	100%			

**Table 19. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by NIH-Extended and Flow Cytometry - class II**

Method: NIH-Extended											
<b>*** Serum 1269 ***</b>			<b>*** Serum 1270 ***</b>			<b>*** Serum 1271 ***</b>			<b>*** Serum 1272 ***</b>		
1 typing Lab			1 typing Lab			1 typing Lab			1 typing Lab		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
Undetermined			Undetermined			Undetermined			Undetermined		

Method: Flow Cytometry											
<b>*** Serum 1269 ***</b>			<b>*** Serum 1270 ***</b>			<b>*** Serum 1271 ***</b>			<b>*** Serum 1272 ***</b>		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
no specificities assigned			no specificities assigned			no specificities assigned			no specificities assigned		

**Table 20. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by Other and C1q- class II**

Method: Other											
*** Serum 1269 ***			*** Serum 1270 ***			*** Serum 1271 ***			*** Serum 1272 ***		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DR10	50%	100%	DQ7	50%	100%	DQ2	50%	100%	DR4	50%	100%
DR11	50%	100%	DQ8	50%	100%	DR11	50%	100%			
DR12	50%	100%	DQ9	50%	100%	DR13	50%	100%			
DR13	50%	100%	DR7	50%	100%	DR14	50%	100%			
DR14	50%	100%	DR9	50%	100%	DR17	50%	100%			
DR17	50%	100%				DR18	50%	100%			
DR18	50%	100%				DR52	50%	100%			
DR52	50%	100%				DR7	50%	100%			
DR8	50%	100%									
DR9	50%	100%									

Other = Luminex PRA

Method: C1q											
*** Serum 1269 ***			*** Serum 1270 ***			*** Serum 1271 ***			*** Serum 1272 ***		
1 typing Lab			1 typing Lab			1 typing Lab			1 typing Lab		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
NT			NT			no consensus			NT		

**Table 21. Summary of the 569<sup>th</sup> Serum Exchange (Serum #1269-1272) by Luminex - class II**

Method: Luminex											
*** Serum 1269 ***			*** Serum 1270 ***			*** Serum 1271 ***			*** Serum 1272 ***		
25 typing Labs			25 typing Labs			25 typing Labs			24 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DR11	96%	100%	DQ7	100%	71%	DR11	100%	100%	DR4	100%	67%
DR13	96%	100%	DQ8	100%	67%	DR13	100%	100%	DR53	92%	27%
DR14	96%	100%	DR7	96%	100%	DR7	100%	100%			
DR8	96%	100%	DQ9	96%	78%	DQ2	100%	93%			
DR9	96%	86%	DR9	92%	60%	DR14	96%	100%			
DR10	92%	100%	DR52	68%	100%	DR17	96%	100%			
DR12	92%	100%	DR12	60%	100%	DR18	96%	100%			
DR17	88%	100%				DR52	96%	100%			
DR18	88%	100%				DPw2	92%	100%			
DR52	84%	100%				DPw3	92%	100%			
DR53	84%	93%				DPw6	92%	100%			
DR7	44%	100%				DP18	88%	100%			
DQ5	24%	100%				DP28	88%	100%			
DQ2	20%	100%				DP14	80%	100%			
DR1403	20%	100%				DP17	80%	100%			
						DP9	80%	100%			
						DPw4	72%	86%			
						DP10	64%	100%			
						DP20	64%	100%			
						DP402	40%	100%			
						DR1403	24%	100%			

**Table 22. Individual laboratory results for Serum #1269 - 1272 by NIH-Standard and NIH-Extended - class I**

**** Serum 1269 ****				**** Serum 1270 ****			**** Serum 1271 ****					**** Serum 1272 ****				
Ctr	% POS	A29	Other	% POS	B17	Other	% POS	A2	A28	B17	Other	% POS	B13		Other	Method
786		+			+			+	+	+			+			STD

STD = NIH-Standard

**** Serum 1269 ****				**** Serum 1270 ****			**** Serum 1271 ****					**** Serum 1272 ****					
Ctr	% POS	A29	Other	% POS	A25	Other	% POS	A2	B57	B58	Other	% POS	B13	B60	B49	Other	Method
725	15	+		6	+		44	+	+	+		17	+	+	+		EXT
3753	24	+		2			33	+	+			8	+				EXT

EXT = NIH-Extended



**Table 23. Individual laboratory results for Serum #1269 - 1272 by Antiglobulin - class I**

		**** Serum 1269 ****							**** Serum 1270 ****						**** Serum 1271 ****						**** Serum 1272 ****								
Ctr	% POS	A29	A26	B42	B49	B50	Other	% POS	A66	B17	A26	B57	A11	Other	% POS	A2	A68	B57	B58	A28	Other	% POS	B13	B41	B45	B47	B49	Other	Method
774	59	+	+	+	+	+	B70,B62,B53,B55>	25	+		+	+	+		83	+	+	+	+	+	B62,B50,B13,B44>	54	+	+	+	+	+	B60,B61,B48,B50>	Antiglobulin
786		+								+						+	+	+	+				+						Antiglobulin

**Table 24. Individual laboratory results for Serum #1269 - 1272 by Other and Flow Cytometry - class I**

**** Serum 1269 ****													**** Serum 1270 ****										Method	
Ctr	% POS	A1	A26	A29	A30	A36	B35	B49	B50		Other	% POS	A11	A2	A25	A26	A29	A31	A32	A33	A34	A66		Other
2400	89											85												Other
3753	78	+	+	+	+	+	+	+	+		B53,B54,B55	82	+	+	+	+	+	+	+	+	+	+	A74,A68,B57,B58	Other

**** Serum 1271 ****													**** Serum 1272 ****										Method	
Ctr	% POS	A2	A68	A69	B18	B35	B45	B54	B56	B57	B58	Other	% POS	B13	B41	B44	B45	B47	B49	B50	B51	B52		Other
2400	98												78											Other
3753	84	+	+	+	+	+	+	+	+	+	+	B78,B62,B72	68	+	+	+	+	+	+	+	+	+	B60,B61,B62,B53 >	Other

Other = Luminex PRA

**** Serum 1269 ****													**** Serum 1270 ****										Method	
Ctr	% POS										Other	% POS												Other
3224	94											84												FC
5214	96											83												FC
8067	76											81												FC

**** Serum 1271 ****													**** Serum 1272 ****										Method	
Ctr	% POS										Other	% POS												Other
3224	91											96												FC
5214	92											85												FC
8067	91											73												FC

FC = Flow cytometry

**Table 25. Individual laboratory results for Serum #1269 by Luminex - class I**

		**** Serum 1269 ****																																				
Ctr	% POS	A1	A26	A36	B35	B42	B53	B55	B56	B67	A80	A29	A43	B49	B50	B71	B77	B75	B62	B72	B63	A30	B7	B54	A2	B46	B51	B57	B78	B82	A69	B58	A34	A74	Other	Method		
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,A24,A66,B13,A*24:02 >	LMX	
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
731	30	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A68	LMX		
774	73	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A203,B52,A31 >	LMX	
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A66,B13,B52 >	LMX	
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B52,A31,A33,B39 >	LMX	
3224		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,A24,A203,B13 >	LMX	
3632	99	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A66,B52,A31 >	LMX	
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B52,B37,B41,B59 >	LMX	
3766	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,A24,A66,B13 >	LMX	
3808	23	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B15	LMX	
3966	37	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A31,B81	LMX	
5214		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B52,A31,A33,A23,A*24:02 >	LMX
5219	23	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B15,B70,A10,B21 >	LMX	
5462		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
6649	35	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A68	LMX
8043	78	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A11,A66,B13,B45 >	LMX
8045		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B15	LMX
8058	64	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,A24,B52,A31 >	LMX
8062		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,A66,B52,A31 >	LMX
8086	200	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
8090		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B52,A31,A33,B41 >	LMX
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Bw4,Bw6,B12C,B5C >	LMX
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B52,A31,B81,Cw10 >	LMX
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,B15,A68	LMX
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,A66,B13,B52 >	LMX

**Table 26. Individual laboratory results for Serum #1270 by Luminex - class I**

		**** Serum 1270 ****																										
Ctr	% POS	A2	A25	A26	A32	B57	B58	A43	A34	A33	A68	A29	A31	A66	B63	A11	A74	A69	A1101	A1102	A6601	A6602	A203	Other	Method			
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									LMX	
725		+	+	+	+	+	+	+	+	+	+	+	+	+		+											LMX	
731	26	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				LMX	
774	62	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+											LMX	
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+		B76	LMX	
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									LMX
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									LMX
3224		+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+		B62,A30,A23,A36 >	LMX	
3632	83	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								LMX	
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									LMX
3766	83	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				LMX	
3808	23	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX	
3966	27	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								LMX	
5214		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+			A23,A*30:01,A36,B62 >	LMX	
5219	14	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+		A10,A19,A28,B17 >	LMX	
5462		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX	
6649	25	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+			LMX	
8043	78	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+							B60,B61,B48,B49 >	LMX	
8045	26	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+			B15	LMX	
8058	27	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							Bw4,Bw6	LMX	
8062		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							B76	LMX	
8086	200	+	+	+	+	+	+	+						+													LMX	
8090		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								LMX	
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+		Bw4,B5C,A1C,A10C >	LMX	
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							A10C	LMX	
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX	
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								LMX	

**Table 27. Individual laboratory results for Serum #1271 by Luminex - class I**

		**** Serum 1271 ****																																							
Ctr	% POS	A2	A68	A69	B57	B58	B64	B18	B38	B45	B54	B55	B65	B67	B35	B13	B37	B47	B49	B56	B59	B27	B50	B51	B52	B72	B75	B62	B44	B53	B63	B71	B46	B77	B76	B78	B39	B82	Other	Method	
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A33,A23,B73,A*33:01>	LMX	
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B2708	LMX	
731	49	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A2403,B2708,B7801 >	LMX	
774	75	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Bw4	LMX	
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A203,A33,A23 >	LMX	
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A33,A23,B73 >	LMX	
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24	LMX	
3224		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A203,A33,A23 >	LMX	
3632	95	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A33,A23,Bw4 >	LMX	
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Bw4	LMX	
3766	96	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A33,A23,B73 >	LMX	
3808	47	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A203,B14,B2708,B7801 >	LMX	
3966	53	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,B7,A26,A30	LMX	
5214		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A33,A23,B73,A*33:01>	LMX
5219	30	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A203,B15,B70,B21 >	LMX	
5462		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A203,Bw4,B2708,B7801 >	LMX	
6649	48	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A203,B2708	LMX	
8043	80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A11,B48,A34,A29 >	LMX	
8045	47	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B15,B2708,B3901	LMX	
8058	49	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,Bw4,Bw6,Cw5	LMX	
8062		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A33,B73,Cw5	LMX	
8086		+	+	+	+	+	+						+																										LMX		
8090		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A33,A23,B73 >	LMX	
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A203,Bw4,Bw6 >	LMX	
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B5C	LMX	
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A203,B15,B14 >	LMX	
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,A23,B73,Cw5	LMX	

**Table 28. Individual laboratory results for Serum #1272 by Luminex - class I**

		**** Serum 1272 ****																																					
Ctr	% POS	B13	B41	B44	B45	B47	B49	B50	B60	B62	B77	B75	B61	B76	B53	B7	B72	B27	B38	B51	B71	B52	B35	B59	B63	B81	B48	B57	B37	B39	B46	B56	B2708	Other	Method				
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		B78,B55,B67,B58 >	LMX				
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX			
731	31	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+					+	B8101	LMX			
774	60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX			
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B58,B73,B8101 >	LMX		
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B58,B73,Bw4,A6602	LMX		
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX		
3224		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B55,B67,B58 >	LMX		
3632	96	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B58	LMX		
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Bw4	LMX		
3766	98	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B55,B58,B73 >	LMX		
3808	28	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B703,B8101	LMX		
3966	31	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX		
5214		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B58,Bw4,A6602,B55,B78>	LMX		
5219	18	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B40,B15,B70,B21 >	LMX	
5462		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B8101	LMX	
6649	31	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B703	LMX	
8043	62	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B82,B54,A74,B64 >	LMX	
8045	26	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B40,B15,B703	LMX	
8058	38	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Bw4,Bw6	LMX	
8062		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B58	LMX	
8086		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
8090		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B58	LMX	
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B703,Bw4,Bw6,B12C >	LMX
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B40,B15	LMX
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX

**Table 29. Individual laboratory results for Serum #1269 - 1272 by C1q - class I**

Ctr	**** Serum 1269 ****					**** Serum 1270 ****					**** Serum 1271 ****					**** Serum 1272 ****			Method
	% POS	A1	A29	A36	Other	% POS	B57	B58	A25	Other	% POS	A2	A68	A69	Other	% POS	B13	Other	
786		+	+	+			+	+				+	+	+	B57,B58		+		C1q
2400		+	+	+	B75,A43		+	+	+								+		C1q

**Table 30. Individual laboratory results for Serum #1269 - 1272 by NIH-Extended and Flow Cytometry - class II**

		**** Serum 1269 ****				**** Serum 1270 ****				**** Serum 1271 ****				**** Serum 1272 ****				
Ctr	% POS			Other	% POS			Other	% POS			Other	% POS			Other	Method	
3753	43				5				61				7				EXT	

Ext = NIH-extended

		**** Serum 1269 ****				**** Serum 1270 ****				**** Serum 1271 ****				**** Serum 1272 ****				
Ctr	% POS			Other	% POS			Other	% POS			Other	% POS			Other	Method	
3224	84				67				NT				26				FC	
5214	87				66				93				13				FC	
8067	85				68				93				14				FC	

FC = Flow cytometry



**Table 31. Individual laboratory results for Serum #1269 - 1272 by Other and C1q - class II**

		**** Serum 1269 ****						**** Serum 1270 ****						**** Serum 1271 ****						**** Serum 1272 ****					
Ctr	% POS	DR10	DR11	DR12	DR13	DR14	Other	% POS	DQ7	DQ8	DQ9	DR7	DR9	Other	% POS	DQ2	DR11	DR13	DR14	DR17	Other	% POS	DR4	Other	Method
2400	89							57							91							17			Other
3753	70	+	+	+	+	+	DR8,DR9,DR17>	57	+	+	+	+	+		63	+	+	+	+	+	DR7,DR18,DR52	13	+		Other

Other = Luminex PRA

		**** Serum 1269 ****						**** Serum 1270 ****						**** Serum 1271 ****						**** Serum 1272 ****					
Ctr	% POS						Other	% POS						Other	% POS	DR11	DR17	DR18	DR52	DP10	Other	% POS		Other	Method
2400	NT							NT								+	+	+	+	+	DP14,DP17,DP18+	NT			C1q

**Table 32. Individual laboratory results for Serum #1269 - #1270 by Luminex - class II**

**** Serum 1269 ****														**** Serum 1270 ****										Method		
Ctr	% POS	DR11	DR13	DR14	DR8	DR9	DR10	DR12	DR17	DR18	DR52	DR53	DR7	Other	% POS	DQ7	DQ8	DR7	DQ9	DR9	DR52	DR12	Other			
615		+	+	+	+	+	+	+	+	+	+	+	+	DQ2,DQ5,DQB1*05:02		+	+	+	+	+	+	+	+	DPw1,DRB3*01:01,DRB3*03:01	LMX	
731	24	+	+	+	+	+	+	+					+	DR3,DR1403,DR1404	17	+	+	+	+	+		+			LMX	
774	89	+	+	+	+	+	+	+	+	+	+	+			46	+	+	+	+	+					LMX	
910		+	+	+	+	+	+	+	+	+	+	+	+	DQA1*05,DQB1*05:01		+	+	+	+	+	+	+	+	DRB3*01:01, DRB3*03:01	LMX	
2400		+	+	+	+	+	+	+	+	+	+	+	+	DQ5		+	+	+	+	+					LMX	
3224		+	+	+	+	+	+	+	+	+	+	+	+	DQ2,DQ5,DQB1*05:02		+	+	+	+	+	+	+	+		LMX	
3632	93	+	+	+	+	+	+	+	+	+	+	+	+	DQ2,DQ5	56	+	+	+	+	+	+	+	+		LMX	
3753		+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+		DRB3*01:01, DRB3*03:01	LMX	
3766	96	+	+	+	+	+	+	+	+	+	+	+	+	DQ2,DQ5,DQB1*05:02	33	+	+	+	+	+	+	+	+	DRB3*01:01, DRB3*03:01	LMX	
3808	25	+	+	+	+	+	+	+	+	+	+	+	+	DR1403,DR1404	16	+	+	+	+	+	+	+	+		LMX	
3966	25	+	+	+	+	+	+	+	+	+		+			13	+	+	+	+	+				DQA1*03,DQA1*05,DQA1*06	LMX	
5214		+	+	+	+	+	+	+	+	+	+	+		DQB1*05:02		+	+	+	+	+	+	+	+	DRB3*01:01, DRB3*03:01	LMX	
5219	21	+	+	+	+	+	+	+	+	+	+	+	+	DR3,DR5,DR6,DR1403 >	11	+	+	+	+	+	+	+		DQ3	LMX	
5462		+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+		DRB3*01:01, DRB3*03:01	LMX	
6649	24	+	+	+	+	+	+	+	+	+	+	+	+	DR1403,DR1404	15	+	+	+	+	+	+	+	+			LMX
8043	70	+	+	+	+	+	+	+	+	+	+				47	+	+	+	+	+					LMX	
8045		+	+	+	+	+	+				+	+		DR3	15	+	+	+	+	+	+	+	+		LMX	
8058	2													DQ4	11	+	+							DR11,DQ2	LMX	
8062		+	+	+	+	+	+	+	+	+	+	+	+	DQ2		+	+	+	+	+	+	+	+		LMX	
8086		+	+	+	+	+			+	+					200	+	+	+	+						LMX	
8090		+	+	+	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+	DQA1*03,DQA1*05,DQA1*06	LMX	
8098		+	+	+	+	+	+	+	+	+	+	+	+	DR1403		+	+	+	+	+	+	+	+		LMX	
8100		+	+	+	+	+	+	+	+	+	+	+				+	+	+	+	+	+	+	+		LMX	
8103		+	+	+	+	+	+	+	+	+	+	+		DR3		+	+	+	+	+	+	+	+	DQ3	LMX	
8112		+	+	+	+	+	+	+	+	+	+	+		DQ5		+	+	+	+	+	+	+	+		LMX	

**Table 33. Individual laboratory results for Serum #1271 - #1272 by Luminex - class II**

		**** Serum 1271 ****																		**** Serum 1272 ****							
Ctr	% POS	DR11	DR13	DR7	DQ2	DR14	DR17	DR18	DR52	DPw2	DPw3	DPw6	DP18	DP28	DP14	DP17	DP9	DPw4	DP10	DP20	Other	% POS	DR4	DR53	Other	Method	
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DP402,DPB1*04:02	LMX
731	31	+	+	+	+	+				+	+	+	+	+	+	+	+	+			DR3,DR1403	7	+				LMX
774	91	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	11	+	+			LMX
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DP402		+	+			LMX
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+			LMX
3224		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					+	+			LMX
3632	78	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	+	+	DPw1,DPw5		LMX
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DP402		+	+			LMX
3766	86	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	60	+	+	DPw1,DPw5,DP14, DPA1*02:01/DPB1*01:01, DPA1*02:02/DPB1*05:01		LMX
3808	31	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			DR3,DR1403,DP402	8	+	+	DR16		LMX
3966	34	+	+	+	+		+	+	+	+	+	+	+	+					+	+	DPA1*01,DPA1*02,DPA1*04,DQA1*05	7	+	+			LMX
5214		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DP402,DQA1*05:05		+	+			LMX
5219	30	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR3,DR5,DR6,DR1403	4	+	+			LMX
5462		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DP402,DPB1*04:02		+	+			LMX
6649	31	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			DR1403	7	+	+			LMX
8043	63	+	+	+	+	+	+	+													DR12	13	+				LMX
8045	31	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			DR1403	6	+	+			LMX
8058	47	+	+	+	+	+	+	+	+												DR4,DQ7,DQ8,DQ9	9	+	+			LMX
8062		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DQA1*05		+	+			LMX
8086		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX
8090		+	+	+	+	+	+	+	+	+	+	+	+	+					+	+	DPA1*01,DPA1*02,DPA1*04,DQA1*05		+	+			LMX
8098		+	+	+	+	+	+	+	+	+	+	+						+			DR1403		+	+			LMX
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DP402		+	+			LMX
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			DR3,DP402		+	+			LMX
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+			LMX