

# REPORT OF THE 426<sup>th</sup> CELL EXCHANGE FEBRUARY 2, 2022

B-cell Line	593 - 594
Cells	1701 - 1704
Serum	1329 - 1336

## B-CELL LINE EXCHANGE #297

The results for B-cell Line Exchange #297 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 6.

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

**Ter-593.** The reported HLA type for this cell from a donor of Vietnamese descent was DRB1\*09:01-DRB1\*15:02-DRB4\*01:03-DRB5\*01:08N-DQA1\*01:01-DQA1\*03:02-DQB1\*03:03-DQB1\*05:01-DPA1\*02:01-DPA1\*02:02-DPB1\*05:01-DPB1\*14:01-A\*26:01-A\*34:01-B\*15:21-B\*38:02-C\*04:03-C\*07:02.

One possible association present in this cell was B\*38:02-C\*07:02-DRB1\*15:02-DQB1\*05:01, observed exclusively in Asians, with HF = 0.00518. The other likely association present was B\*15:21-C\*04:03-DRB1\*09:01-DQB1\*03:03. The B\*15:21-C\*04:03 association in this cell is observed exclusively in Asians, with HF = 0.00341.

This cell was previously examined as Ter 489 (2013), Ter 192 (1996), Ter 69 (1990), and extract 76 (1999). In this present retyping, ≥ 90% agreement was achieved for all allele assignments except DQA1\*03. Fifteen lab assigned DQA1\*03:02, 1 lab assigned DQA1\*03:01P, and 1 lab assigned DQA1\*03:01.

Liu noted a possible new DQA1\*01 allele was present: "TER 593 new DQA1 allele closest allele: DQA1\*01:01:01:07 Mismatch E1-36, codon -12.3 CTC>CTG." This same observation was made by Fischer in the 2013 study (Figure 1) (1).

**Ter-594.** The reported HLA type for this from cell a donor of unknown heritage was DRB1\*09:01-DRB1\*12:02-DRB3\*02:02-DRB4\*01:03-DQA1\*03:02-DQA1\*06:01-DQB1\*03:01-DQB1\*03:03-DPA1\*02:02-DPB1\*05:01-A\*11:01-A\*30:01-B\*13:02-B\*15:02-C\*06:02-C\*08:01.

One possible association present in this cell was B\*15:02-C\*08:01-DRB1\*12:02-DQB1\*03:01, observed commonly in Asians, with HF = 0.02287. The other likely association present was B\*13:02-C\*06:02-DRB1\*09:01-DQB1\*03:03. The DRB1\*09:01-DQB1\*03:03 association present is the most common association observed in Asians, with HF = 0.09664.

This cell was previously examined in the Exchange as Ter 258 (2000). In this present study, ≥ 90% agreement was achieved for all allele assignments.

**Reference:**

1. Locke A, Gjertson D, Zhang Q, and Reed EF. Report of the 375<sup>th</sup> Cell Exchange. August 7, 2013.

AA Codon	-20	-15	-10	-5	1
DQA1*01:01:01	ATG ATC CTA AAC AAA GCT CTG CTG CTG GGG GCC CTG GCT CTG ACC ACC GTG ATG AGC CCC TGT GGA GGT GAA GAC ATT GTG G				
AA Codon	-20	-15	-10	-5	1
DQA1*01:new	ATG ATC CTA AAC AAA GCT CTG CTG CTG GGG GCC CTG GCT CTG ACC ACC GTG ATG AGC CCC TGT GGA GGT GAA GAC ATT GTG G				

Figure 1. from Gottfried Fischer, Vienna, June 6, 2013.



**Table 2: Summary of the 297<sup>th</sup> B-cell Line Exchange**

**Ter-594**

DNA Typing - class II		<b>22 labs High; 20 labs low-DRB1</b>		<b>16 labs High; 16 labs Low-DRB3/4/5</b>		<b>17 labs High; 17 labs Low-DQA1</b>		<b>21 labs High; 19 labs Low-DQB1</b>		<b>13 labs High; 9 labs Low-DPA1</b>		<b>21 labs High; 11 labs Low-DPB1</b>			
			%(n)		%(n)		%(n)		%(n)		%(n)		%(n)		
DNA Typing - class II	DRB1*09:01:02	23(5)		DRB3*02:02:01	6 (1)	DQA1*03:02:01	12(2)	DQB1*03:01:01	19(4)	DPA1*02:02:02	15(2)	DPB1*05:01:01	24(5)		
	DRB1*09:01P	4 (1)		DRB3*02:02P	6 (1)	DQA1*03:01P	6 (1)	DQB1*03:01P	5 (1)	DPA1*02:02:02G	8 (1)	DPB1*05:01:01G	5 (1)		
	DRB1*09:01	73(16)		DRB3*02:02	88(14)	DQA1*03:02	82(14)	DQB1*03:01	76(16)	DPA1*02:02P	8 (1)	DPB1*05:01	71(15)		
	DRB1*09	100(20)		DRB3*02	88(14)	DQA1*03	100(17)	DQB1*03(DQ7)	53(10)	DPA1*02:02	61(8)	DPB1*05	100(11)		
				DRB3*PRESENT	12(2)			DQB1*03	47(9)	DPA1*02:07	8 (1)				
									DPA1*02	100(9)					
DNA Typing - class I	<b>18 labs High; 17 labs low- A</b>		<b>18 labs High; 17 labs low- B</b>		<b>18 labs High; 17 labs low- C</b>		<b>18 labs High; 17 labs low- C</b>		<b>18 labs High; 17 labs low- A</b>		<b>18 labs High; 17 labs low- B</b>		<b>18 labs High; 17 labs low- C</b>		
		%(n)		%(n)		%(n)		%(n)		%(n)		%(n)		%(n)	
	A*11:01:01	16(3)	B*13:02:01	22(4)	C*06:02:01	22(4)	C*06:02:01	22(4)	A*30:01:01	22(4)	B*15:02:01	28(5)	C*08:01:01	22(4)	
	A*11:01:01G	6 (1)	B*13:02P	6 (1)	C*06:02P	6 (1)	C*06:02P	6 (1)	A*30:01P	6 (1)	B*15:02	72(13)	C*08:01P	6 (1)	
	A*11:01P	6 (1)	B*13:02	72(13)	C*06:02	72(13)	C*06:02	72(13)	A*30:01	72(13)	B*15(B75)	59(10)	C*08:01	72(13)	
	A*11:01	72(13)	B*13	100(17)	C*06	100(17)	C*06	100(17)	A*30	100(17)	B*15	41(7)	C*08	100(17)	
	A*11	100(17)													

**Table 3a: Individual laboratory results for B-cell #593 - Class II**

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
278	*09	*15	4*01	5*01	*01	*03	*03	*05	*02	*02	*05	*14		
725	*09	*15	4*01	5*01	*01	*03	*03(DQ9)	*05					SSO	
747	*09	*15	4*01	5*01	*01	*03	*03	*05	*02	*02	*05	*14	SSP SSO NGS	
792	*09	*15	4*01	5*01N	*01	*03	*03(DQ9)	*05	*02	*02	*05	*14	SSO NGS	
793	*09	*15	4*PRESENT	5*NULL	*01	*03	*03(DQ9)	*05			*05	*14	SSP	
2400	*09	*15	4*01	5*01N	*01	*03	*03	*05	NT	NT	*05	*14	SSO NGS	
2847	*09	*15											SSP	
													SSP NGS	
3519	*09	*15	4*01	5*01	*01	*03	*03(DQ9)	*05	*02		*05	*14	RT-PCR	
3753	*09	*15	4*01	5*01N	*01	*03	*03(DQ9)	*05	*02	*02	*05	*14	SSO	
3966													SSP	
4079	*09	*15	4*01	5*01N	*01	*03	*03(DQ9)	*05	*02	*02	*05	*14	SSO	
5130	*09	*15	4*01	5*01	*01	*03	*03	*05			*05	*14	SSO NGS	
5214	*09	*15	4*01	5*01N	*01	*03	*03(DQ9)	*05	*02	*02	*05	*14	SSO	
5219	*09	*15			*01	*03	*03	*05					SSO NGS	
5451	*09	*15	4*01	5*01N	*01	*03	*03	*05					SSO SBT	
5462	*09	*15	4*01	5*01N	*01	*03	*03	*05	*02	*02	NT	NT	SSO	
5488			4*01										SSO NGS	
5642	*09	*15	4*PRESENT	5*PRESENT			*03(DQ9)	*05					SSP SSO	
6649	*09	*15					*03(DQ9)	*05					SSO	
8029	*09	*15			*01	*03	*03	*05						
8068	*09	*15			*01	*03	*03	*05					SSO	A*66
8123	*09	*15	4*01	5*01N	*01	*03	*03(DQ9)	*05	*02	*02	*05	*14	RT-PCR	

**Table 3b: Individual laboratory results for B-cell #593 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01	*02:02	*05:01	*14:01	NGS	
278	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01	*02:02	*05:01	*14:01		DRB1*09:21
747	*09:01:02	*15:02:01	4*01:03:01	5*01:08N	*01:01	*03:02:01	*03:03:02	*05:01	*02:01:01	*02:02:02	*05:01:01	*14:01:01	SSP SSO NGS	DRB1*15:140 DRB1*15:149 DQB1*05:263
762	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01	*02:02	*05:01	*14:01	NGS	
792	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01	*02:02	*05:01	*14:01	SSO NGS	DRB1*15:140 DRB1*15:149
793					*01:01	*03:02					*05:01	*14:01	SSP	
2344	*09:01:02	*15:02:01	NT	NT	NT	NT	*03:03:02	*05:01:24	NT	NT	*05:01:01	*14:01:01	NGS	DPB1*135:01 DRB1*09:31 DRB1*15:140 DRB1*15:149 DPB1*834:01
2400	*09:01	*15:02	4*01:03	5*01:08N	NEW	*03:02	*03:03	*05:01	NT	NT	*05:01:01G	*14:01:01G	SSO NGS	DRB1*15:140 DRB1*15:149
3135	*09:01P	*15:02:01	4*01:03	5*01:08N	*01:01P	*03:01P	*03:03:02	*05:01P	*02:01	*02:02P	*05:01:01	*14:01:01		
3224	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01	*02:02	*05:01	*14:01	NGS	
3511	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01	*02:07	*05:01	*14:01	SSP SSO	
3519	*09:01	*15:02P	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01			*05:01	*14:01	SSP NGS RT-PCR	DRB1*15:02 DRB1*15:140 DRB1*15:149
3966	*09:01	*15:02	4*01:03	5*01:08N			*03:03	*05:01					SSP	
4337	*09:01	*15:02					*03:03	*05:01			*05:01	*14:01	SSP SBT NGS	
5130	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01			*05:01	*14:01	SSO NGS	DRB1*15:140 DRB1*15:149
5219	*09:01:02	*15:02:01					*03:03:02	*05:01:24			*05:01:01	*14:01:01	SSO NGS	
5451	*09:01:02	*15:02:01											SSO SBT	

**Table 3b: Individual laboratory results for B-cell #593 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
														DPB1*860:01 DPB1*951:01 DPB1*1015:01 DPB1*1018:01 DPB1*1117:01 DPB1*1118:01 DPB1*1119:01 DPB1*1120:01 DPB1*1143:01 DPB1*1172:01 DPB1*1213:01 DPB1*1257:01 DPB1*1273:01 DPB1*794:01N DPB1*834:01 DPB1*949:01 DPB1*986:01N DPB1*135:01+
5462	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	*05:01	*14:01	SSO
5488	*09:01:02	*15:02:01G		5*01:08N	*01:01	*03:02:01	*03:03:02	*05:01:24	*02:01:01	*02:02:02	*05:01:01	*14:01:01	SSO NGS	
5642	*09:01	*15:02					*03:03	*05:01					SSP SSO	
8021	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:01	*03:03	*05:01	*02:01	*02:02	*05:01	*14:01	SSO NGS	
8043	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01	*02:02	*05:01	*14:01		
8086	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01:01G	*02:02:02G	*05:01	*14:01	SBT	
8122	*09:01	*15:02	4*01:03	5*01:08N	*01:01	*03:02	*03:03	*05:01	*02:01	*02:02	*05:01	*14:01	NGS	DPB1*135:01 DPB1*834:01

**Table 4: Individual laboratory results for B-cell #593 - Class I**

Center	Low resolution						High resolution						METHOD	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
230							*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	NGS	
278	*26	*34	*15	*38	*04	*07	*26:01	*34:01	*15:21	*38:02	*04:03	*07:02		
725	*26	*34	*15(B75)	*38	*04	*07							SSO	
747							*26:01:01	*34:01:01	*15:21	*38:02:01	*04:03:01	*07:02:01	SSP SSO NGS	
762													NGS	
792	*26	*34	*15(B75)	*38	*04	*07	*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	SSO NGS	
793	*26	*34	*15(B75)	*38	*04	*07							SSP	
2344							*26:01:01	*34:01:01	*15:21	*38:02:01	*04:03:01	*07:02:01	NGS	
2400	*26	*34	*15(B75)	*38	*04	*07	*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	SSO NGS	
2847	*26	*34	*15	*38	*04	*07							SSP	
3135							*26:01P	*34:01:01G	*15:21	*38:02:01G	*04:03	*07:02P		
3224							*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	NGS	
3511							*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	SSP SSO	
3519	*26	*34	*15(B75)	*38	*04	*07	*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	SSP NGS RT-PCR	
3753	*26	*34	*15(B75)	*38	*04	*07							SSO	
3966	*26	*34	*15(B75)	*38	*04	*07							SSP	
4079	*26	*34	*15(B75)	*38	*04	*07							SSO	
4337							*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	SSP SBT NGS	
5130	*26	*34	*15	*38	*04	*07	*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	SSO NGS	
5214	*26	*34	*15(B75)	*38	*04	*07							SSO	
5219	*26	*34	*15	*38	*04	*07	*26:01:01	*34:01:01	*15:21	*38:02:01	*04:03:01	*07:02:01	SSO NGS	
5451													SSO SBT	
5462	*26	*34	*15	*38	*04	*07	NT	NT	NT	NT	NT	NT	SSO	
5488							*26:01:01	*34:01:01	*15:21	*38:02:01	*04:03:01	*07:02:01	SSO NGS	
5642													SSP SSO	
6649													SSO	
8021							*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	SSO NGS	
8029	*26	*34	*15	*38	*04	*07								
8043							*26:01	*34:01	*15:21	*38:02	*04:03	*07:02		
8068	*26	*34	*15	*38	*04	*07							SSO	
8086							*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	SBT	
8122							*26:01	*34:01	*15:21	*38:02	*04:03	*07:02	NGS	
8123	*26	*34	*15(B75)	*38	*04	*07							RT-PCR	

**Table 5a: Individual laboratory results for B-cell #594 - Class II**

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
278	*09	*12	3*02	4*01	*03	*06	*03	*03	*02	*02	*05	*05		
725	*09	*12	3*02	4*01	*03	*06	*03(DQ7)	*03(DQ9)					SSO	
747	*09	*12	3*02	4*01	*03	*06	*03	*03	*02	*02	*05	*05	SSP SSO NGS	
792	*09	*12	3*02	4*01	*03	*06	*03(DQ7)	*03(DQ9)	*02	*02	*05	*05	SSO NGS	
793	*09	*12	3*PRESENT	4*PRESENT	*03	*06	*03(DQ7)	*03(DQ9)			*05		SSP	
2400	*09	*12	3*02	4*01	*03	*06	*03	*03			*05		SSO NGS	
2847	*09	*12											SSP	
													SSP NGS	
3519	*09	*12	3*02	4*01	*03	*06	*03(DQ7)	*03(DQ9)	*02		*05		RT-PCR	
3753	*09	*12	3*02	4*01	*03	*06	*03(DQ7)	*03(DQ9)	*02	*02	*05	*05	SSO	
3966													SSP	
4079	*09	*12	3*02	4*01	*03	*06	*03(DQ7)	*03(DQ9)	*02		*05		SSO	
5130	*09	*12	3*02	4*01	*03	*06	*03	*03			*05	*05	SSO NGS	
5214	*09	*12	3*02	4*01	*03	*06	*03(DQ7)	*03(DQ9)	*02		*05		SSO	
5219	*09	*12			*03	*06	*03	*03					SSO NGS	
5451	*09	*12	3*02	4*01	*03	*06	*03	*03					SSO SBT	
5462	*09	*12	3*02	4*01	*03	*06	*03	*03	*02		NT	NT	SSO	
5488			3*02										SSO NGS	
5642	*09	*12	3*PRESENT	4*PRESENT			*03(DQ7)	*03(DQ9)					SSP SSO	
6649	*09	*12					*03(DQ7)	*03(DQ9)					SSO	
8029	*09	*12			*03	*06	*03	*03						
8068	*09	*12			*03	*06	*03	*03					SSO	
8123	*09	*12	3*02	4*01	*03	*06	*03(DQ7)	*03(DQ9)	*02	*02	*05	*05	RT-PCR	



**Table 5b: Individual laboratory results for B-cell #594 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02	*02:02	*05:01	*05:01	NGS	
278	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02	*02:02	*05:01	*05:01		
747	*09:01:02	*12:02:01	3*02:02:01	4*01:03:02	*03:02:01	*06:01:01	*03:01:01	*03:03:02	*02:02:02	*02:02:02	*05:01:01	*05:01:01	SSP SSO NGS	
762	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02		*05:01		NGS	
792	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02	*02:02	*05:01	*05:01	SSO NGS	
793					*03:02	*06:01					*05:01		SSP	
2344	*09:01:02	*12:02:01	NT	NT	NT	NT	*03:01:01	*03:03:02	NT	NT	*05:01:01	*05:01:01	NGS	DRB1*09:31
2400	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03			*05:01:01G		SSO NGS	
3135	*09:01P	*12:02:01	3*02:02	4*01:03	*03:01P	*06:01	*03:01P	*03:03:02	*02:02P	*02:02P	*05:01:01	*05:01:01		
3224	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02		*05:01		NGS	
3511	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:07	02:07	*05:01	*05:01	SSP SSO	
3519	*09:01	*12:02	3*02:02P	4*01:03	*03:02	*06:01	*03:01	*03:03			*05:01		SSP NGS RT-PCR	DRB3*02:02
3966	*09:01	*12:02	3*02:02	4*01:03			*03:01	*03:03					SSP	
4337	*09:01	*12:02					*03:01	*03:03			*05:01	*05:01	SSP SBT NGS	
5130	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03			*05:01	*05:01	SSO NGS	
5219	*09:01:02	*12:02:01					*03:01:01	*03:03:02			*05:01:01	*05:01:01	SSO NGS	
5451	*09:01:02	*12:02:01											SSO SBT	
5462	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	*05:01		SSO	DPB1*951:01 DPB1*1143:01 DPB1*1156:01 DPB1*1172:01 DPB1*1180:01 DPB1*1199:01 DPB1*1213:01 DPB1*1257:01 DPB1*1273:01 DPB1*135:01 DPB1*223:01 DPB1*330:01 DPB1*331:01 DPB1*729:01 DPB1*778:01 DPB1*847:01 DPB1*851:01+
5488	*09:01:02	*12:02:01		4*01:03:02	*03:02:01	*06:01:01	*03:01:01	*03:03:02	*02:02:02		*05:01:01		SSO NGS	
5642	*09:01	*12:02					*03:01	*03:03					SSP SSO	
8021	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02		*05:01		SSO NGS	
8043	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02		*05:01			
8086	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02:02G	*02:02:02G	*05:01	*05:01	SBT	
8122	*09:01	*12:02	3*02:02	4*01:03	*03:02	*06:01	*03:01	*03:03	*02:02	*02:02	*05:01	*05:01	NGS	

**Table 6: Individual laboratory results for B-cell #594 - Class I**

Center	Low resolution						High resolution						METHOD	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
230							*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	NGS	
278	*11	*30	*13	*15	*06	*08	*11:01	*30:01	*13:02	*15:02	*06:02	*08:01		
725	*11	*30	*13	*15(B75)	*06	*08							SSO	
747							*11:01:01	*30:01:01	*13:02:01	*15:02:01	*06:02:01	*08:01:01	SSP SSO NGS	
762													NGS	
792	*11	*30	*13	*15(B75)	*06	*08	*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSO NGS	
793	*11	*30	*13	*15(B75)	*06	*08							SSP	
2344							*11:01:01	*30:01:01	*13:02:01	*15:02:01	*06:02:01	*08:01:01	NGS	
2400	*11	*30	*13	*15(B75)	*06	*08	*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSO NGS	
2847	*11	*30	*13	*15	*06	*08							SSP	
3135							*11:01P	*30:01P	*13:02P	*15:02:01	*06:02P	*08:01P		
3224							*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	NGS	
3511							*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSP SSO	
3519	*11	*30	*13	*15(B75)	*06	*08	*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSP NGS RT-PCR	
3753	*11	*30	*13	*15(B75)	*06	*08							SSO	
3966	*11	*30	*13	*15(B75)	*06	*08							SSP	
4079	*11	*30	*13	*15(B75)	*06	*08							SSO	
4337							*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSP SBT NGS	
5130	*11	*30	*13	*15	*06	*08	*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSO NGS	
5214	*11	*30	*13	*15(B75)	*06	*08							SSO	
5219	*11	*30	*13	*15	*06	*08	*11:01:01G	*30:01:01	*13:02:01	*15:02:01	*06:02:01	*08:01:01	SSO NGS	
5451													SSO SBT	
5462	*11	*30	*13	*15	*06	*08	NT	NT	NT	NT	NT	NT	SSO	
5488							*11:01:01	*30:01:01	*13:02:01	*15:02:01	*06:02:01	*08:01:01	SSO NGS	
5642													SSP SSO	
6649													SSO	
8021							*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	SSO NGS	
8029	*11	*30	*13	*15	*06	*08								
8043							*11:01	*30:01	*13:02	*15:02	*06:02	*08:01		
8068	*11	*30	*13	*15	*06	*08							SSO	
8086							*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	SBT	
8122							*11:01	*30:01	*13:02	*15:02	*06:02	*08:01	NGS	
8123	*11	*30	*13	*15(B75)	*06	*08							RT-PCR	

## CELL EXCHANGE #426

The results for Cell Exchange #426 are summarized in Table 7 - 10. Molecular typing results for individual laboratories are listed in Tables 11 – 18 for each sample.

We would like to thank the labs performing NGS for sharing their findings. Haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

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**Cell 1701.** The reported HLA type for this cell from an Asian donor was A\*02:03-B\*15:12-B\*54:01-C\*01:02-C\*04:03-DRB1\*04:05-DRB1\*15:02-DRB4\*01:03-DRB5\*01:03-DQA1\*01:01-DQA1\*03:03-DQB1\*04:01-DQB1\*05:02-DPA1\*01:03-DPA1\*02:02-DPB1\*02:01-DPB1\*05:01.

This cell was the sibling of cell 1702, also examined in this Exchange. The siblings share the A\*02:03-B\*15:12-C\*04:03-DRB1\*15:02-DRB5\*01:03-DQA1\*01:01-DQB1\*05:02-DPB1\*02:01 haplotype present. A parent of the siblings was also examined in the Exchange as cell 971 (1998). This cell inherited its A\*02:03-B\*54:01-C\*01:02-DRB1\*04:05-DRB4\*01:03-DQA1\*03:03-DQB1\*04:01-DPB1\*05:01 haplotype with the parent.

This cell was previously examined as cells 1591 (2017), 1487 (2013), 1453 (2012), and 1417 (2011). In this present retyping,  $\geq 90\%$  agreement was achieved for allele assignments.

**Cell 1702.** The reported HLA type for this cell from an Asian donor was A\*02:03-A\*31:01-B\*15:12-B\*40:02-C\*03:04-C\*04:03-DRB1\*15:01-DRB1\*15:02-DRB5\*01:01-DRB5\*01:03-DQA1\*01:01-DQA1\*01:02-DQB1\*05:02-DQB1\*06:02-DPA1\*01:03-DPA1\*02:02-DPB1\*02:01 This cell is the sibling of cell 1701 and offspring of cell 971.

From family studies and exchange data, the haplotypes present in this cell were the A\*02:03-B\*15:12-C\*04:03-DRB1\*15:02-DRB5\*01:03-DQA1\*01:01-DQB1\*05:02-DPB1\*02:01 and A\*31:01-B\*40:02-C\*03:04-DRB1\*15:01-DRB5\*01:01-DQA1\*01:02-DQB1\*06:02-DPB1\*02:01. The latter haplotype was inherited from the parent, cell 971.

This cell was previously examined as cells 1486 (2013), 1454 (2012), and 1413 (2010). In the present retyping,  $\geq 90\%$  agreement was achieved for allele assignments.

**Cell 1703.** The reported HLA type for this cell from a Black donor was A\*03:01-A\*23:01-B\*49:01-B\*53:01-C\*04:01-C\*07:01-DRB1\*11:01-DRB1\*16:02-DRB3\*02:02-DRB5\*02:02-DQA1\*01:02-DQB1\*05:02-DQB1\*06:02-DPA1\*01:03-DPA1\*03:01-DPB1\*04:01-DPB1\*105:01.

Likely associations present in this cell were B\*53:01-C\*04:01-DRB1\*16:02-DQB1\*05:02 and B\*49:01-C\*07:01-DRB1\*11:01-DQB1\*06:02, observed in African American populations, with respective HF = 0.00251 and 0.00218.

Greater than 80% agreement was achieved for allele assignments. This sample was not graded as < 10 labs reported results.

**Cell 1704.** The reported HLA type for this cell from a Caucasian donor was A\*02:01-A\*74:03-B\*15:01-B\*37:01-C\*06:02-C\*12:03-DRB1\*07:01-DRB1\*10:01-DRB4\*01:03N-DQA1\*01:05-DQA1\*02:01-DQB1\*03:03-DQB1\*05:01-DPA1\*02:01-DPB1\*01:01-DPB1\*10:01.

One likely class I association present in this cell was B\*37:01-C\*06:02-DRB1\*10:01-DQB1\*05:01, observed in Caucasians, with HF = 0.00404. The other likely association present is B\*15:01-C\*12:03-DRB1\*07:01-DQB1\*03:03. The association of B\*15:01-C\*12:03 in this cell is observed in Caucasians, with HF = 0.00007.

Greater than 80% agreement was achieved for allele assignments. This sample was not graded as < 10 labs reported results.



**Table 8: Summary of the 426<sup>th</sup> Cell Exchange - DNA Typing**

**Cell 1702**

DNA Typing - class I	<u>10 labs High;9 labs low- A</u>		<u>10 labs High; 9 labs low- B</u>		<u>10 labs High; 8 labs low- C</u>	
		%(n)		%(n)		%(n)
	A*02:03:01	10(1)	B*15:12	100(10)	C*03:04:01	20(2)
	A*02:03	90(9)	B*15(B76)	44(4)	C*03:04	80(8)
	A*02	100(9)	B*15	56(5)	C*03(Cw10)	38(3)
					C*03	62(5)
<u>9 labs High;9 labs low- A</u>		<u>10 labs High; 9 labs low- B</u>		<u>10 labs High; 8 labs low- C</u>		
	%(n)		%(n)		%(n)	
A*31:01:02	11(1)	B *40:02:01	10(1)	C*04:03:01	20(2)	
A*31:01	89(8)	B*40:02	90(9)	C*04:03	80(8)	
A*31	100(9)	B*40(B61)	44(4)	C*04	100(8)	
		B*40	56(5)			

DNA Typing - class II	<u>9 labs High; 5 labs low-DRB1</u>		<u>5 labs High; 1 labs low-DRB3/4/5</u>		<u>6 labs High; 3 labs Low-DQA1</u>		<u>9 labs High; 5 labs Low-DQB1</u>		<u>5 labs High; 1 labs Low-DPA1</u>		<u>8 labs High; 3 labs Low-DPB1</u>	
		%(n)		%(n)		%(n)		%(n)		%(n)		%(n)
	DRB1*15:01:01	11(1)	DRB5*01:01:01	20(1)	DQA1*01:01:01	17(1)	DQB1*05:02:01G	11(1)	DPA1*01:03:01	20(1)	DPB1*02:01:02	12(1)
	DRB1*15:01:01G	22(2)	DRB5*01:01:01G	20(1)	DQA1*01:01	83(5)	DQB1*05:02	89(8)	DPA1*01:03:01G	20(1)	DPB1*02:01:02G	12(1)
	DRB1*15:01	67(6)	DRB5*01:01	60(3)	DQA1*01	100(3)	DQB1*05	100(5)	DPA1*01:03	60(3)	DPB1*02:01	75(6)
	DRB1*15	100(5)	DRB5*PRESENT	100(1)					DPA1*01	100(1)	DPB1*02(DP201)	33(1)
											DPB1*02	67(2)
<u>9 labs High-DRB1</u>		<u>5 labs High-DRB3/4/5</u>		<u>7 labs High-DQA1</u>		<u>9 labs High; 5 labs Low-DQB1</u>		<u>5 labs High; 1 labs Low-DPA1</u>				
	%(n)		%(n)		%(n)		%(n)		%(n)			
DRB1*15:02:01G	11(1)	DRB5*01:03	100(5)	DQA1*01:02:01	14(1)	DQB1*06:02:01	11(1)	DPA1*02:02:02	20(1)			
DRB1*15:02	89(8)			DQA1*01:02	86(6)	DQB1*06:02:01G	22(2)	DPA1*02:02	80(4)			
						DQB1*06:02	67(6)	DPA1*02	100(1)			
						DQB1*06	100(5)					

**Table 9: Summary of the 426<sup>th</sup> Cell Exchange - DNA Typing**

**Cell 1703**

<b>DNA Typing - class I</b>	<b><u>7 labs High; 7 labs low- A</u></b>	<b>%(n)</b>	<b><u>8 labs High; 7 labs low- B</u></b>	<b>%(n)</b>	<b><u>8 labs High; 6 labs low- C</u></b>	<b>%(n)</b>
	A*03:01	100(7)	B*49:01	100(8)	C*04:01:01G	13(1)
	A*03	86(6)	B*49	86(6)	C*04:01	87(7)
	A*02	14(1)	B*15(B76)	14(1)	C*04	100(6)

<b>DNA Typing - class II</b>	<b><u>5 labs High; 3 labs low-DRB1</u></b>	<b>%(n)</b>	<b><u>3 labs High-DRB3/4/5</u></b>	<b>%(n)</b>	<b><u>5 labs High; 3 labs Low-DQA1</u></b>	<b>%(n)</b>	<b><u>6 labs High; 3 labs Low-DQB1</u></b>	<b>%(n)</b>	<b><u>3 labs High; 1 labs Low-DPA1</u></b>	<b>%(n)</b>	<b><u>6 labs High; 3 labs Low-DPB1</u></b>	<b>%(n)</b>
	DRB1*11:01	100(5)	DRB3*02:02:01G	33(1)	DQA1*01:02	100(5)	DQB1*05:02:01G	17(1)	DPA1*01:03:01G	33(1)	DPB1*04:01:01	17(1)
	DRB1*11	100(3)	DRB3*02:02	67(2)	DQA1*01	100(3)	DQB1*05:02	83(5)	DPA1*01:03	67(2)	DPB1*04:01	83(5)
							DQB1*05	100(3)	DPA1*01	100(1)	DPB1*04(DP401)	33(1)
											DPB1*04	67(2)

**Table 10: Summary of the 426<sup>th</sup> Cell Exchange - DNA Typing**

**Cell 1704**

DNA Typing - class I	<u>7 labs High; 7 labs low- A</u>		<u>7 labs High; 7 labs low- B</u>		<u>7 labs High; 6 labs low- C</u>	
		%(n)		%(n)		%(n)
	A*02:01	100(7)	B*15:01	100(7)	C*06:02	100(7)
	A*02	100(7)	B*15(B62)	43(3)	C*06	100(6)
			B*15	57(4)		
DNA Typing - class I	<u>8 labs High; 7 labs low- A</u>		<u>8 labs High; 7 labs low- B</u>		<u>7 labs High; 6 labs low- C</u>	
		%(n)		%(n)		%(n)
	A*74:03	88(7)	B*37:01	88(7)	C*12:03	100(7)
	A*37:01	12(1)	B*12:03	12(1)	C*12	100(6)
	A*74	100(7)	B*37	100(7)		

DNA Typing - class II	<u>5 labs High; 3 labs low-DRB1</u>		<u>3 labs High-DRB3/4/5</u>		<u>4 labs High; 3 labs Low-DQA1</u>		<u>6 labs High; 3 labs Low-DQB1</u>		<u>3 labs High; 1 labs Low-DPA1</u>		<u>6 labs High; 3 labs Low-DPB1</u>	
		%(n)		%(n)		%(n)		%(n)		%(n)		%(n)
	DRB1 07:01:01G	20(1)	DRB4*01:03:01:02N	33(1)	DQA1*01:05	100(4)	DQB1*03:03	100(6)	DPA1*02:01:01G	33(1)	DPB1*01:01	100(6)
	DRB1*07:01	80(4)	DRB4*01:03N	67(2)	DQA1*01	100(3)	DQB1*03(DQ9)	33(1)	DPA1*02:01	67(2)	DPB1*01	100(3)
	DRB1*07	100(3)					DQB1*03	67(2)	DPA1*02	100(1)		
DNA Typing - class II	<u>6 labs High; 3 labs low-DRB1</u>				<u>5 labs High; 3 labs Low-DQA1</u>		<u>6 labs High; 3 labs Low-DQB1</u>				<u>6 labs High; 3 labs Low-DPB1</u>	
		%(n)		%(n)		%(n)		%(n)		%(n)		%(n)
	DRB1*10:01:01G	17(1)			DQA1*02:01	100(5)	DQB1*05:01:01G	17(1)			DPB1*10:01	100(6)
	DRB1*10:01	83(5)			DQA1*02	100(3)	DQB1*05:01	83(5)			DPB1*10	100(3)
	DRB1*10	100(3)					DQB1*05	100(3)				

**Table 11. Individual laboratory results for Cell #1701 - Class I**

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*02	*02	*15	*54	*01	*04	*02:03	*02:03	*15:12	*54:01	*01:02	*04:03		
725	*03	*23	*49	*53	*07	*04							SSO	
731	*02	*02	*15	*54	*01	*04	*02:03:01	*02:03:01	*15:12:01G	*54:01:01	*01:02:01	*04:03:01	SSO NGS	
747	*02	*02	*15	*54	*01	*04	*02:03:01	*02:03:01	*15:12	*54:01:01	*01:02:01	*04:03:01	SSP SSO NGS	
762							*02:03		*15:12	*54:01	*01:02	*04:03	NGS	
771	*02		*15	*54	*01	*04	*02:03		*15:12	*54:01	*01:02	*04:03	SSP SSO SBT	
3808	*02	*02	*15(B76)	*54	*01	*04	*02:03	*02:03	*15:12	*54:01	*01:02	*04:03	NGS	
4079	*02		*15(B76)	*54	*01	*04	*02:03		*15:12	*54:01	*01:02	*04:03	SSO	
4251							*02:03	*02:03	*15:12	*54:01	*01:02	*04:03	SSP NGS	
5462							*02:03		*15:12	*54:01	*01:02	*04:03	NGS	
5642	*02		*15	*54	*01	*04							SSP	
6649	*02		*15(B76)	*54									SSO	
8001							*02:03		*15:12	*54:01	*01:02	*04:03	NGS	



**Table 12a: Individual laboratory results for Cell #1701 - Class II**

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
731	*04	*15			*01	*03	*04	*05			*02	*05	SSO NGS	
747	NT												SSP SSO NGS	
771	*04	*15			*01	*03	*04	*05			*02	*05	SSP SSO SBT NGS	
3808	*04	*15	NT	NT	*01	*03	*04	*05	*01	*02	*02(DP201)	*05	SSO	
4079	*04	*15					*04	*05					SSP NGS	
5642	*04	*15	4*PRESENT	5*PRESENT			*04	*05					SSP	

**Table 12b: Individual laboratory results for Cell #1701 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
731	*04:05:01	*15:02			*01:01	*03:03	*04:01	*05:02			*02:01	*05:01	SSO NGS	
747	*04:05:01	*15:02:01	4*01:03:01	5*01:03	*01:01:01	*03:03:01	*04:01:01	*05:02	*01:03:01	*02:02:02	*02:01:02	*05:01:01	SSP SSO NGS	DRB1*15:140 DRB1*15:149 DQB1*05:241 DPB1*414:01 DPB1*744:01
771	*04:05	*15:02					*04:01	*05:02			*02:01	*05:01	SSP SSO SBT NGS	
3808	*04:05	*15:02:01G					*04:01	*05:02	*01:03	*02:02	*02:01	*05:01	SSO	
4079	*04:05	*15:02	4*01:03	5*01:03	*01:01	*03:03	*04:01	*05:02	*01:03	*02:02	*02:01	*05:01	SSP NGS	
4251	*04:05	*15:02:01G	4*01:01:01G	5*01:03	*01:01	*03:03	*04:01	*05:02:01G	*01:03:01G	*02:02	*02:01	*05:01	NGS	
5462	*04:05	*15:02	4*01:03	5*01:03	*01:01	*03:03	*04:01	*05:02	*01:03	*02:02	*02:01P	*05:01P	NGS	DPB1*414:01 DPB1*744:01
5642	*04:05	*15:02					*04:01	*05:02					SSP	
8001	*04:05	*15:02	4*01:03	5*01:03	*01:01	*03:03	*04:01	*05:02			*02:01	*05:01	NGS	

**Table 13. Individual laboratory results for Cell #1702 - Class I**

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*02	*31	*15	*40	*03	*04	*02:03	*31:01	*15:12	*40:02	*03:04	*04:03		
725	*02	*31	*15(B76)	*40(B61)	*03(Cw10)	*04							SSO	
731	*02	*31	*15	*40	*03	*04	*02:03	*31:01	*15:12	*40:02	*03:04:01	*04:03:01	SSO NGS	
747	*02	*31	*15	*40	*03	*04	*02:03:01	*31:01:02	*15:12	*40:02:01	*03:04:01	*04:03:01	SSP SSO NGS	
762							*02:03	*31:01	*15:12	*40:02	*03:04	*04:03	NGS	
													SSP SSO SBT	
771	*02	*31	*15	*40	*03	*04	*02:03	*31:01	*15:12	*40:02	*03:04	*04:03	NGS	
3808	*02	*31	*15(B76)	*40(B61)	*03(Cw10)	*04	*02:03		*15:12	*40:02	*03:04	*04:03	SSO	
4079	*02	*31	*15(B76)	*40(B61)	*03(Cw10)	*04	*02:03	*31:01	*15:12	*40:02	*03:04	*04:03	SSP NGS	
4251							*02:03	*31:01	*15:12	*40:02	*03:04	*04:03	NGS	
5462							*02:03	*31:01	*15:12	*40:02	*03:04	*04:03	NGS	
5642	*02	*31	*15	*40	*03	*04							SSP	
6649	*02	*31	*15(B76)	*40(B61)									SSO	
8001							*02:03	*31:01	*15:12	*40:02	*03:04	*04:03	NGS	

**Table 14a: Individual laboratory results for Cell #1702 - Class II**

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
731	*15	*15			*01	*01	*05	*06			*02	*02	SSO NGS	
747	NT												SSP SSO NGS	
771	*15	*15			*01	*01	*05	*06			*02		SSP SSO SBT NGS	
3808	*15	*15	NT	NT	*01	*01	*05	*06	*01	*02	*02(DP201)	*02(DP201)	SSO	
4079	*15	*15					*05	*06					SSP NGS	
5642	*15		5*PRESENT				*05	*06					SSP	

**Table 14b: Individual laboratory results for Cell #1702 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
731	*15:01	*15:02			*01:01	*01:02	*05:02	*06:02			*02:01	*02:01	SSO NGS	
747	*15:01:01	*15:02	5*01:01:01	5*01:03	*01:01:01	*01:02:01	*05:02	*06:02:01	*01:03:01	*02:02:02	*02:01:02	*02:01:02	SSP SSO NGS	DQB1*05:241 DRB1*15:149 DRB1*15:140
771	*15:01	*15:02					*05:02	*06:02			*02:01		SSP SSO SBT NGS	
3808	*15:01:01G	*15:02				*01:02	*05:02	*06:02:01G	*01:03	*02:02	*02:01:02G	*02:01:02G	SSO	
4079	*15:01	*15:02	5*01:01	5*01:03	*01:01	*01:02	*05:02	*06:02	*01:03	*02:02	*02:01		SSP NGS	
4251	*15:01:01G	*15:02:01G	5*01:01:01G	5*01:03	*01:01	*01:02	*05:02:01G	*06:02:01G	*01:03:01G	*02:02	*02:01	*02:01	NGS	
5462	*15:01	*15:02	5*01:01	5*01:03	*01:01	*01:02	*05:02	*06:02	*01:03	*02:02	*02:01		NGS	
5642	*15:01	*15:02					*05:02	*06:02					SSP	
8001	*15:01	*15:02	5*01:01	5*01:03	*01:01	*01:02	*05:02	*06:02			*02:01		NGS	

**Table 15. Individual laboratory results for Cell #1703 - Class I**

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*03	*23	*49	*53	*04	*07	*03:01	*23:01	*49:01	*53:01	*04:01	*07:01		
725	*02		*15(B76)	*54	*04	*01							SSO	
731	*03	*23	*49	*53	*04	*07	*03:01	*23:01	*49:01	*53:01	*04:01	*07:01	SSO NGS	
747	NT												SSP SSO NGS	
762							*03:01	*23:01	*49:01	*53:01	*04:01	*07:01	NGS	
													SSP SSO SBT	
771	*03	*23	*49	*53	*04	*07	*03:01	*23:01	*49:01	*53:01	*04:01	*07:01	NGS	
3808	*03	*23	*49	*53	*04	*07			*49:01	*53:01	*04:01:01G	*07:01:01G	SSO	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP NGS	
4251							*03:01	*23:01	*49:01	*53:01	*04:01	*07:01	NGS	
5462							*03:01	*23:01	*49:01	*53:01	*04:01	*07:01	NGS	
5642	*03	*23	*49	*53	*04	*07							SSP	
6649	*03	*23	*49	*53									SSO	
8001							*03:01	*23:01	*49:01	*53:01	*04:01	*07:01	NGS	

**Table 16a: Individual laboratory results for Cell #1703 - Class II**

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
731	*11	*16			*01	*01	*05	*06			*04	*04	SSO NGS	
747	NT												SSP SSO NGS	
771	*11	*16			*01		*05	*06			*04	*105	SSP SSO SBT NGS	
3808	*11	*16	NT	NT	*01	*01	*05	*06	*01	*03	*04(DP401)	*105	SSO	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP NGS	
5642	NT												SSP	

**Table 16b: Individual laboratory results for Cell #1703 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
731	*11:01	*16:02			*01:02	*01:02	*05:02	*06:02			*04:01	*105:01	SSO NGS	
747	NT												SSP SSO NGS	
771	*11:01	*16:02					*05:02	*06:02			*04:01	*105:01	SSP SSO SBT NGS	
3808					*01:02	*01:02	*05:02		*01:03	*03:01	*04:01:01	*105:01:01	SSO	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP NGS	
4251	*11:01	*16:02:01G	3*02:02:01G	5*02:02:01G	*01:02	*01:02	*05:02:01G	*06:02	01:03:01G	*03:01	*04:01	*04:02:01G	NGS	
5462	*11:01	*16:02	3*02:02	5*02:02	*01:02	*01:02	*05:02	*06:02	*01:03	*03:01	*04:01	*105:01	NGS	
5642	NT												SSP	
8001	*11:01	*16:02	3*02:02	5*02:02	*01:02		*05:02	*06:02			*04:01	*105:01	NGS	

**Table 17. Individual laboratory results for Cell #1704 - Class I**

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*02	*74	*15	*37	*06	*12	*02:01	*74:03	*15:01	*37:01	*06:02	*12:03		
725	*02	*74	*15(B62)	*37	*06	*12							SSO	
731	*02	*74	*15	*37	*06	*12	*02:01	*74:03	*15:01	*37:01	*06:02	*12:03	SSO NGS	
747	NT												SSP SSO NGS	
762							*02:01	*74:03	*15:01	*37:01	*06:02	*12:03	NGS	
771	*02	*74	*15	*37	*06	*12	*02:01	*74:03	*15:01	*37:01	*06:02	*12:03	SSP SSO SBT	
3808	*02	*74	*15(B62)	*37	*06	*12		*37:01		*12:03			NGS	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSO	
4251							*02:01	*74:03	*15:01	*37:01	*06:02	*12:03	SSP NGS	
5462							*02:01	*74:03	*15:01	*37:01	*06:02	*12:03	NGS	
5642	*02	*74	*15	*37	*06	*12							SSP	
6649	*02	*74	*15(B62)	*37									SSO	
8001							*02:01	*74:03	*15:01	*37:01	*06:02	*12:03	NGS	

**Table 18a: Individual laboratory results for Cell #1704 - Class II**

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
731	*07	*10			*01	*02	*03	*05			*01	*10	SSO NGS	
747	NT												SSP SSO NGS	
771	*07	*10			*01	*02	*03	*05			*01	*10	SSP SSO SBT NGS	
3808	*07	*10	NT	NT	*01	*02	*03(DQ9)	*05	*02	*02	*01	*10	SSO	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP NGS	
5642	NT												SSP	

**Table 18b: Individual laboratory results for Cell #1704 - Class II**

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
731	*07:01	*10:01			*01:05	*02:01	*03:03	*05:01			*01:01	*10:01	SSO NGS	
747	NT												SSP SSO NGS	
771	*07:01	*10:01					*03:03	*05:01			*01:01	*10:01	SSP SSO SBT NGS	
3808		*10:01				*02:01	*03:03	*05:01	*02:01	*02:01	*01:01	*10:01	SSO	
4079	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	SSP NGS	
4251	07:01:01G	*10:01:01G	4*01:03N		*01:05	*02:01	*03:03	*05:01:01G	*02:01:01G	*02:01:01G	*01:01	*10:01	NGS	
5462	*07:01	*10:01	4*01:03N	NP	*01:05	*02:01	*03:03	*05:01	*02:01		*01:01	*10:01	NGS	
5642	NT												SSP	
8001	*07:01	*10:01	4*01:03:01:02N		*01:05	*02:01	*03:03	*05:01			*01:01	*10:01	NGS	

# SERUM EXCHANGE #584

The results for Serum Exchange #584 were summarized in Tables 19 - 26 and individual listing of results are shown in tables 27 - 40. Sera strongly

positive to A2, B7, B13, DQ3 (DQ7, DQ8, DQ9), and DR7 were examined in this study.

1329	method	#labs	NEG	B13	B7	B60	B61	B27	B2705	B2708	B47	B73	B81	B8101	B38	B39	B3901	B8	B41	B48	B62	B67	B42	B75	B76	B55	B56	B54	B18	B50
class I	NIH-Std	1	no consensus																											
	AHG	1	no consensus																											
	C1q	3		100%	33%	33%	33%																							
	PRA	3	33%	33%	33%	33%	33%	33%			33%	33%	33%			33%		33%	33%	33%	33%	33%	33%			33%	33%	33%	33%	
	SAB	19		100%	100%	100%	100%	100%	20%	30%	100%	100%	95%	20%	95%	85%	20%	90%	95%	95%	95%	95%	90%	90%	90%	90%	70%	65%	60%	75%

  

1329	method	#labs	B72	Cw2	B49	B71	B77	B59	Cw17	A66	A6602	B35	B64	B45	B52	B78	B37	Bw6	B46	B65	B703	B82	B40	B63	Bw4	B16	B4005	B57	B7C	B8C
	SAB	19	75%	75%	70%	70%	70%	55%	55%	55%	45%	50%	50%	40%	30%	30%	25%	25%	20%	20%	20%	20%	10%	10%	10%	5%	5%	5%	5%	5%

1329	method	#labs	NEG	DR7	DR11	DR9	DP11	DP13	DP17	DP18	DP19	DPw1	DPw2	DPw3	DPw5	DPw6	DR53	DR52	DR17	DR18
class II	C1q	2	50%	25%																
	PRA	3		33%	33%	33%												33%	33%	33%
	SAB	18		88%	94%	88%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%			

  

1329	method	#labs	NEG	DP14	DP28	DP9	DP10	DP20	DPw4	DP402	DPA1*02	DP15	DPA1*03	DPA1*04	DPA1*01	DP26	DR10	DR5
	SAB	18		94%	94%	94%	78%	78%	67%	39%	33%	22%	22%	22%	17%	6%	6%	6%

**Serum 1329.** Strong anti-B13 (21929) reactivity was detected in this sample by all methods. In addition, labs reporting by antiglobulin, C1q, Luminex PRA, and Luminex SAB detected strong reactivity to B7 (15786), B60 (15878), and B61 (15951).  
Strong anti-DR7 (13478) reactivity was also reported in this sample by

C1q, PRA, and SAB labs. Additionally, labs reporting by SAB reported reactivity to a number of DP specificities including DP1 (5301), DP2 (9093), DP3 (8891), DP5 (5555), DP6 (8585), DP11 (4761), DP13 (4214), DP17 (8819), DP18 (7548), and DP19 (4140). Each were reported by 100% of labs, along with DR53 (3634).

\*(median MFI by SAB)



1330	method	#labs	A2	A25	A26	A33	A34	A68	A69	A66	A6601	A6602	A24	A2403	B18	B35	B38	B46	B49	B50	B53	B54	B56
class I	NIH-Std	1	no consensus																				
	AHG	1	no consensus																				
	C1q	3	100%	100%	67%	100%	100%	100%	100%	100%													
	PRA	3	33%	33%	33%	33%	33%	33%	33%	67%			33%		67%	33%	33%	33%	67%	67%	33%	67%	67%
	SAB	19	100%	100%	100%	100%	100%	100%	100%	95%	20%	20%	100%	30%	100%	100%	100%	100%	100%	100%	100%	100%	100%
1330	method	#labs	B62	B63	B71	B72	B8	A3	B64	B65	B75	B77	B39	B59	B41	A1	A11	A1101	A1102	B51	B52	B78	B7801
	PRA	3	33%	33%	67%	67%	67%	33%	33%	33%	33%	33%	33%	33%	33%	33%							
	SAB	19	100%	100%	100%	100%	100%	95%	95%	95%	95%	95%	90%	85%	25%	85%	95%	15%	15%	95%	95%	95%	15%
1330	method	#labs	A36	Cw10	A43	Cw9	A74	B57	A203	A30	B3901	B58	Bw6	B15	Bw4	Cw3	A10	A10C	A1C	A28	A2C	A9	
	SAB	19	90%	80%	75%	70%	55%	35%	25%	25%	20%	20%	15%	10%	10%	10%	5%	5%	5%	5%	5%	5%	

1330	method	#labs	DR53	DQ8	DQ7	DQ4	DR10	DR9	DR7	DR4	DQ9	DR11	DR14	DR1	DQ2	DQA1*02	DQA1*03	DQA1*04	DQA1*06	DQA1*05	DR1404	DQ3	DQA1*01
class II	C1q	2	100%	100%	50%	50%	50%				100%				50%	50%	50%						
	PRA	3	67%	33%	33%	33%	33%	67%	67%	33%		33%											
	SAB	21	100%	94%	56%	100%	100%	100%	83%	100%	94%		94%	78%	72%	61%	61%	50%	50%	22%	22%	6%	6%

**Serum 1330.** Strong anti-A2 (21970), -A33 (18597), -A68 (24086), and -A69 (23380) reactivity was detected in this sample by all methods. Anti-A10 (A25 (19598), -A26 (15881), and -A66 (17965)) reactivity was also reported by all methods, except NIH-standard. In addition, Luminex PRA and SAB reported reactivity to a number of 5C, 7C and 8C specificities.

Strong class II reactivity was reported by C1q, PRA and SAB, including anti-DR53 (23657), -DQ7 (13301), -DQ8 (23973), -DQ4 (17478), and -DR10 (13873) reactivity. Interestingly, only 72% of labs detected anti-DQ2 reactivity despite a median MFI = 18712. DQ2 was also reported by 1 lab reporting by C1q which reported an MFI of 6514.

\*(median MFI by SAB)

1331	method	#labs	NEG	A69	B55	A1	A25	A66	A68	B63	B7	B48	B54	B56	B61	B82	B46	Cw14	Cw2	Cw4	Cw5	Cw7	A11	A2	A24	A26	A34
class I	NIH-Std	1	NT																								
	AHG	1	NT																								
	C1q	3	67%																								
	PRA	3	67%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%											
	SAB	19	75%	15%	10%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	15%	10%	10%	10%	10%	10%	5%	5%	5%	5%	5%

1331	method	#labs	DR17	DR18	DR52	DPw3	DPw6	DP14	DP19	DP9	DPw1	DP11	DPw5	DP17	DP20	DQ2	DP13	DP10
class II	C1q	2	100%	100%	100%													
	PRA	3	33%	33%														
	SAB	21	94%	94%	88%	61%	56%	50%	44%	44%	44%	44%	44%	39%	39%	39%	39%	25%
1331	method	#labs	DQA1*05	DPA1*02	DPA1*03	DR3	DP26	DPA1*01	DQA1*04	DR14	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR1	
	PRA	3									33%	33%	33%	33%	33%	33%	33%	
	SAB	21	28%	17%	17%	11%	6%	6%	6%	6%								

**Serum 1331.** No consensus was achieved for the reporting of class I reactivity in this sample, as 75% of SAB labs reported it as negative for class I. Two out of 3 C1q and 2 PRA labs reported it as class I negative as well.

By contrast, strong class II reactivity was detected in this sample, with

C1q, PRA and SAB labs reporting anti-DR17 (15352) and DR18 (16044) reactivity. In addition, strong anti-DR52 (11045) reactivity was reported by C1q and SAB as well.

\*(median MFI by SAB)

1332	method	#labs	NEG	A2	A68	A69	B60	B61	B13	B27	B2708	B2705	B7	B73	B81	B8101	B42	B47	B54	B56	B55	B57	B58	B48
class I	NIH-Std	1	no consensus																					
	AHG	1	no consensus																					
	C1q	3		100%		33%	100%	100%	33%	100%			100%	33%	100%			33%						33%
	PRA	3	33%	33%	33%	33%	33%	33%	33%	33%			33%	33%	33%		33%		33%	33%		33%	33%	
	SAB	19		100%	100%	100%	100%	100%	100%	100%	30%	15%	100%	100%	95%	20%	100%	100%	100%	100%	100%	100%	100%	90%

1332	method	#labs	B67	B82	B8201	B63	A24	A2403	A23	A32	A25	A30	A66	A6602	B45	Cw2	B46	A11	A1102	A203	A80	B62	B703	B76
	PRA	3				33%	33%		33%	33%	33%													
	SAB	19	100%	95%	10%	100%	100%	30%	80%	95%	85%	70%	65%	55%	50%	50%	35%	30%	15%	25%	20%	20%	20%	20%

1332	method	#labs	Cw1	B39	B49	B50	B72	Cw14	A31	A33	B15	B38	B40	B59	Bw6	Cw17	A28	A2C	A3	A34	A74	B17	B22	B41
	SAB	19	20%	15%	15%	15%	15%	15%	10%	10%	10%	10%	10%	10%	10%	10%	5%	5%	5%	5%	5%	5%	5%	5%

1332	method	#labs	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR15	DR51	DR7	DR1	DR10	DR103	DR11	DR12	DR13	DR14	DR16	DR4
class II	C1q	2	100%	100%	100%	100%	100%	100%	50%	50%										
	PRA	3	33%	33%	33%	33%	33%	33%	33%	33%	50%	33%	33%	33%	33%	33%	33%	33%	33%	33%
	SAB	22	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

1332	method	#labs	DR8	DR9	DR53	DPw5	DQA1*01	DQA1*03	DQA1*06	DQA1*04	DQA1*05	DR1403	DR1404	DQ3	DQA1*02	DPw2	DQ1	DR2	DR5	DR52	DR6
	PRA	3	33%	33%	33%																
	SAB	22	100%	100%	78%	100%	44%	39%	39%	28%	17%	17%	17%	11%	11%	6%	6%	6%	6%	6%	6%

**Serum 1332.** Strong anti-B7, -B27, -B40 (B60, B61) reactivity was reported in this sample by all methods. Respective median MFI reported for each by Luminex SAB were 20244, 17058, 16577, and 17304. Additional reactivity to A2 (16226), B81 (17828), A69, (12319), B13 (10725), as well as reactivity to a number of 7C specificities was reported by various methods.

Strong class II reactivity was also reported in this sample. C1q, PRA, and

SAB labs each detected anti-DQ4 (21499), -DQ5 (22791), DQ6 (23200), DQ7 (20349), DQ8 (21417), DQ9 (20423), DR15 (15872), and DR51 (15147) reactivity. Additional reactivity to a number of DQA1 specificities, including DQA1\*01 (21121), DQA1\*03 (18556), DQA1\*06 (16722), and DQA1\*04 (15835) was reported by a number of SAB labs.

\*(median MFI by SAB)

# SERUM EXCHANGE #585

The results for Serum Exchange #585 were summarized in Tables 41 - 48 and individual listing of results are shown in tables 49 - 60. Sera strongly

positive to A1, A23, A24, B35, B51, DR8, DR51, and DQ3 (DQ7, DQ8, DQ9) were examined in this second study.

1333	method	#labs	B62	B51	B52	B35	B18	B49	B50	B53	B63	B71	B72	B75	B77	B78	B7801	B56	B54	B55	Cw4	B46	B57	B58	B37	B42
class I	NIH-Std	1	no consensus																							
	AHG	1	no consensus																							
	C1q	3	100%	100%	100%	100%	100%	100%	100%	100%	33%	100%	100%	100%	100%	100%		67%	33%		100%	33%				
	PRA	3	67%	67%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%		33%	33%				33%	33%	33%	33%
	SAB	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	95%	100%	100%	95%	20%	100%	100%	100%	100%	100%	100%	95%	100%	100%

  

1333	method	#labs	B45	B7	B60	B61	B39	B3901	B38	B8	B59	A66	A6601	A25	A68	B48	B65	B64	B41	B67	B76	B82	B8201	Cw10	Cw9	B81
	C1q	3					33%																			
	PRA	3	33%	33%	33%		33%		33%	33%	33%	33%		33%	33%	33%	33%									
	SAB	20	100%	100%	100%	100%	90%	20%	100%	100%	95%	90%	20%	85%	85%	90%	100%	100%	100%	100%	100%	100%	15%	95%	95%	90%

  

1333	method	#labs	B8101	A34	A33	B73	A69	B27	B2708	Bw6	B13	Cw18	A26	B703	Bw4	A6602	B14	B15	B40	B5C	B8C	Cw12	Cw3	B12C
	SAB	20	20%	85%	80%	75%	70%	60%	55%	40%	35%	35%	20%	15%	15%	10%	10%	10%	10%	10%	10%	10%	10%	5%

1333	method	#labs	DR8	DQ4	DQ8	DQ9	DR11	DR12	DR13	DR14	DR1403	DR1404	DR17	DR18	DQA1*05	DQA1*06	DQ7	DQA1*03	DQA1*04	DQ3	DQA1*02	DR3	DQ2	DR5	DR6
class II	C1q	2	100%	100%																					
	PRA	3	33%	67%	33%	33%	33%	33%	33%	33%			33%	33%			33%								
	SAB	18	100%	100%	100%	100%	100%	100%	100%	100%	17%	17%	94%	89%	56%	39%	33%	28%	28%	11%	11%	11%	5%	5%	5%

**Serum 1333.** Strong anti-B35 (22687) and –B51 (21933) reactivity was detected in this sample by all methods. In addition, reactivity to a number of 5C specificities, including anti-B62 (17361), -B52 (13821), -B18 (17999), -B49 (15503), -B50 (14926), and -B53 (21306) reactivity was reported by various methods. C1q, PRA, and SAB labs also reported strong anti-B56 (15304) and

–B54 (13654) reactivity.

Class II reactivity was reported by C1q, PRA, and SAB, with all 3 reporting reactivity to DR8 (13169) and DQ4 (16947). Additional DQ and DR reactivity was also reported by PRA and SAB, including reactivity to DQ8 (7686), DQ9 (6385), DR11 (3228), DR12 (9575), DR13 (2891) and DR14 (2771).

\*(median MFI by SAB)

1334	method	#labs	NEG	Cw7	B73	Cw12	Cw16	Cw8	B38	B67	B39	B3901	Cw10	Cw17	Cw9	A68	A34	A25	B54	B46	A33	B8	B18	B41	B42	B59	Cw18
class II	NIH-Std	1	no consensus																								
	AHG	1	no consensus																								
	C1q	3		67%	67%	67%	67%	67%					33%														
	PRA	3	33%	33%					33%							33%	33%	33%	33%								
	SAB	20		100%	100%	100%	100%	100%	95%	95%	85%	20%	85%	85%	85%	75%	70%	65%	75%	75%	70%	65%	60%	60%	60%	60%	55%

  

1334	method	#labs	A66	A6601	A6602	A80	A11	A1101	A1102	B55	B64	A26	A36	A69	Cw4	A23	Cw6	A1	A43	B65	Cw2	A29	Bw4	Bw6	B37	Cw3
	SAB	20	45%	10%	10%	45%	35%	5%	5%	35%	35%	30%	30%	30%	25%	20%	20%	15%	15%	15%	10%	5%	5%	5%	5%	5%

1334	method	#labs	NEG	DR8	DR103	DR11	DR12	DR13	DR16	DQ4	DQ6	DR4	DR51	DQ5	DQA1*03	DQA1*01	DR7	DR1403	DR1404	DQA1*04	DR1	DR14	DR2	DR5
class II	C1q	2		100%																				
	PRA	3	33%	33%	33%	33%	33%	33%	33%	33%	33%													
	SAB	18		100%	100%	100%	100%	100%	100%	100%	89%	89%	89%	72%	33%	28%	28%	17%	17%	5%	5%	5%	5%	5%

**Serum 1334.** Strong anti-Cw7 (20242) and –DR8 (16901) reactivity was reported in this sample by C1q, PRA, and SAB. Additional reactivity to other C-locus specificities (Cw12, Cw16, Cw8, and Cw10) was also reported by C1q

and SAB. Respective median MFI's for each were 11751, 9997, 9764, and 4986. Anti-B38 (6233), -B54 (2441), as well as reactivity to a number of 10C and DR specificities was reported by PRA and SAB.

\*(median MFI by SAB)

1335	method	#labs	A23	A24	A32	B57	B58	B38	B53	B63	B49	B51	B59	B77	A2	A25	A26	A34	A66	A33	A68	A69	B13	B37
class I	NIH-Std	1	no consensus																					
	AHG	1	no consensus																					
	C1q	3	100%	100%	100%	100%	100%	100%	67%	100%	100%	33%	100%	67%		100%								
	PRA	3	67%	67%	67%	67%	67%	67%	67%	67%	67%	33%		33%	33%	33%	67%	67%	67%	67%	67%	67%	33%	33%
	SAB	20	100%	95%	100%	100%	100%	95%	100%	100%	100%	100%	100%	100%	100%	100%	95%	100%	85%	100%	100%	100%	100%	100%

1335	method	#labs	B44	B47	B52	B27	B2705	Cw2	Cw6	Cw5	Cw18	Bw4	Cw15	A203	A2403	A6601	A2C	A6602	B15	Cw16	Cw17	A10	A10C	A1
	C1q	3					67%	67%				33%												
	PRA	3	67%	33%	67%	33%		33%	33%			33%												33%
	SAB	20	100%	100%	100%	75%	40%	95%	70%	55%	45%	40%	35%	25%	25%	20%	10%	10%	10%	10%	10%	5%	5%	

1335	method	#labs	NEG	DR51	DR11	DR15	DR16	DR8	DR9	DR1	DR10	DR103	DPw2	DR12	DP14	DP17	DP28	DP9	DPw3	DPw6	
class II	C1q	2	50%	50%																	
	PRA	3		67%	67%	67%	67%	67%	67%	33%	33%	33%		33%							
	SAB	18		100%	100%	100%	100%	100%	100%	100%	100%	100%	94%	94%	100%	100%	100%	100%	100%	100%	100%
1335	method	#labs	DP20	DP18	DPw4	DP10	DP402	DPA1*04	DPA1*01	DR13	DPA1*02	DPA1*03	DPw1	DP13	DR18	DR2	DR5	DQ2	DQ4		
	PRA	3																33%	33%		
	SAB	18	83%	78%	72%	61%	28%	22%	17%	17%	11%	11%	11%	5%	5%	5%	5%				

**Serum 1335.** Strong anti-A24 (16880) and –B57 (17955) reactivity was detected by all methods in this sample. In addition, strong reactivity to A23 (18854), B38 (16846), as well as reactivity to a number of 5C and 10C specificities, including A25 (13802), A32 (17172), B58 (15205), B53 (14427), and B63 (14144), was reported by various labs.

Labs reporting by C1q, PRA, and SAB detected anti-DR51 (9512) reactivity in this sample. Additional reactivity to number of DR specificities, including DR11 (3021), DR15 (7361), DR16 (10330), DR8 (3039), and DR9 (4348) was reported by PRA and SAB.

\*(median MFI by SAB)

1336	method	#labs	NEG	A1	A32	A23	A24	A2403	A25	B49	B50	B51	B52	B57	B58	B53	B63	B77	B78	B7801	B62	B72	B18
class I	NIH-Std	1	no consensus																				
	AHG	1	no consensus																				
	C1q	3		100%	100%	67%	67%		100%	100%		100%	67%	33%		67%	67%	67%	67%				
	PRA	3	33%	33%	33%	33%	33%			33%	33%		33%	33%	33%	33%	33%	33%	33%		33%	33%	33%
	SAB	20		100%	100%	100%	100%	25%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	95%	20%	100%	100%	100%
1336	method	#labs	B38	B35	B13	B56	B54	B27	B2705	B47	B8	A33	A80	B37	B44	B59	A36	B64	B65	B71	B75	B76	
	PRA	3	33%	33%	33%	33%	33%	33%		33%	33%	33%	33%										
	SAB	20	100%	100%	100%	100%	80%	80%	45%	95%	85%	95%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
1336	method	#labs	Cw2	Cw15	Cw17	Cw18	Cw5	Cw6	B46	Cw10	Cw9	Cw4	B48	Bw4	B39	B45	A6601	B14	B15	B5C	A29	A2C	
	SAB	20	95%	100%	100%	100%	100%	100%	95%	95%	90%	85%	40%	40%	25%	15%	10%	10%	10%	10%	5%	5%	

1336	method	#labs	NEG	DQ7	DQ8	DQ9	DR4	DR53	DQA1*03	DQA1*04	DQA1*05	DQ4	DQA1*06	DQ2	DR9	DQ3	DQA1*02	DR7	DQ6	DR1	DR10	DR103	DR11
class II	C1q	2		100%	100%	100%																	
	PRA	3	33%	33%	33%	33%	33%	33%															
	SAB	18		100%	100%	100%	100%	94%	83%	83%	83%	67%	61%	44%	33%	11%	11%	11%	5%	5%	5%	5%	5%

**Serum 1336.** Strong anti-A1 (17868) reactivity was reported in this sample by all methods. In addition, reactivity to A32 (8100), A23 (12545), A24 (A\*24:03)(8508), A25 (7153), B38 (8743), as well as reactivity to a number of 5C and 7C specificities was reported by various methods. Luminex labs also reported reactivity to a number of C-locus specificities, including Cw2 (8200), Cw15 (9604), Cw17 (7080), Cw18 (8016), Cw5 (9073), and Cw6 (7573).

Class II reactivity was also detected in this sample, with C1q, PRA, and SAB reporting strong anti-DQ7 (16724), -DQ8 (16276), and -DQ9 (15123) reactivity. DR4 and DR53 reactivity was also reported by PRA and SAB labs, while > 80% of SAB labs reported anti-DQA1\*03 (10443), -DQA1\*04 (5842), and -DQA1\*05 (11257) reactivity.

\*(median MFI by SAB)

**NEXT MAILING DATE: March 2, 2022**

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

**Table 19. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by NIH-Standard - class I**

Method: NIH-Standard											
<b>*** Serum 1329 ***</b>			<b>*** Serum 1330 ***</b>			<b>*** Serum 1331 ***</b>			<b>*** Serum 1332 ***</b>		
1 typing Labs			1 typing Labs			1 typing Labs			1 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
no consensus			no consensus			NT			no consensus		



**Table 20. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by Antiglobulin - class I**

Method: Antiglobulin											
<b>*** Serum 1329 ***</b>			<b>*** Serum 1330 ***</b>			<b>*** Serum 1331 ***</b>			<b>*** Serum 1332 ***</b>		
1 typing Labs			1 typing Labs			1 typing Labs			1 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
no consensus			no consensus			NT			no consensus		

**Table 21. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by C1q - class I**

Method: C1q											
<b>*** Serum 1329 ***</b>			<b>*** Serum 1330 ***</b>			<b>*** Serum 1333 ***</b>			<b>*** Serum 1332 ***</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
B13	100%	100%	A2	100%	100%	NEG	67%	-	A2	100%	100%
B60	33%	100%	A25	100%	100%				B27	100%	100%
B61	33%	100%	A33	100%	100%				B60	100%	100%
B7	33%	100%	A34	100%	100%				B61	100%	100%
			A66	100%	100%				B7	100%	100%
			A68	100%	100%				B81	100%	100%
			A69	100%	100%				A69	33%	100%
			A26	67%	100%				B13	33%	100%
									B47	33%	100%
									B48	33%	100%
									B73	33%	100%

**Table 22. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by PRA- class I**

Method: Luminex - PRA											
*** Serum 1329 ***			*** Serum 1330 ***			*** Serum 1331 ***			*** Serum 1332 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
NEG	33%	-	A66	67%	100%	NEG	67%	-	NEG	33%	-
B13	33%	100%	B18	67%	100%	A1	33%	100%	A2	33%	100%
B18	33%	100%	B49	67%	100%	A25	33%	100%	A23	33%	100%
B27	33%	100%	B50	67%	100%	A30	33%	100%	A24	33%	100%
B39	33%	100%	B54	67%	100%	A32	33%	100%	A25	33%	100%
B41	33%	100%	B56	67%	100%	A66	33%	100%	A32	33%	100%
B42	33%	100%	B71	67%	100%	A68	33%	100%	A68	33%	100%
B47	33%	100%	B72	67%	100%	A69	33%	100%	A69	33%	100%
B48	33%	100%	B8	67%	100%	B13	33%	100%	B13	33%	100%
B54	33%	100%	A1	33%	100%	B27	33%	100%	B27	33%	100%
B55	33%	100%	A2	33%	100%	B42	33%	100%	B42	33%	100%
B56	33%	100%	A24	33%	100%	B47	33%	100%	B54	33%	100%
B60	33%	100%	A25	33%	100%	B48	33%	100%	B56	33%	100%
B61	33%	100%	A26	33%	100%	B54	33%	100%	B57	33%	100%
B62	33%	100%	A3	33%	100%	B55	33%	100%	B58	33%	100%
B67	33%	100%	A33	33%	100%	B56	33%	100%	B60	33%	100%
B7	33%	100%	A34	33%	100%	B57	33%	100%	B61	33%	100%
B73	33%	100%	A68	33%	100%	B60	33%	100%	B63	33%	100%
B8	33%	100%	A69	33%	100%	B61	33%	100%	B7	33%	100%
B81	33%	100%	B13	33%	100%	B63	33%	100%	B73	33%	100%
			B27	33%	100%	B67	33%	100%	B81	33%	100%
			B35	33%	100%	B7	33%	100%			
			B38	33%	100%	B73	33%	100%			
			B39	33%	100%	B82	33%	100%			
			B41	33%	100%						
			B42	33%	100%						
			B45	33%	100%						
			B46	33%	100%						
			B47	33%	100%						
			B48	33%	100%						
			B53	33%	100%						
			B55	33%	100%						
			B59	33%	100%						
			B60	33%	100%						
			B61	33%	100%						

**Table 23. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by Single Antigen - class I**

Method: Luminex - SAB											
*** Serum 1329 ***			*** Serum 1330 ***			*** Serum 1331 ***			*** Serum 1332 ***		
19 typing Labs			19 typing Labs			16 typing Labs			19 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
B13	100%	100%	A2	100%	100%	NEG	75%	-	A2	100%	100%
B27	100%	100%	A24	100%	100%	A69	15%	100%	A24	100%	100%
B47	100%	100%	A25	100%	100%	B46	15%	100%	A68	100%	100%
B60	100%	100%	A26	100%	100%	B55	10%	100%	A69	100%	100%
B61	100%	100%	A33	100%	100%	Cw14	10%	100%	B13	100%	100%
B7	100%	100%	A34	100%	100%	Cw2	10%	100%	B27	100%	100%
B73	100%	100%	A68	100%	100%	Cw4	10%	100%	B42	100%	100%
B38	95%	100%	A69	100%	100%	Cw5	10%	100%	B47	100%	100%
B41	95%	100%	B18	100%	100%	Cw7	10%	100%	B54	100%	100%
B48	95%	100%	B35	100%	100%	A1	5%	100%	B55	100%	100%
B62	95%	100%	B38	100%	100%	A11	5%	100%	B56	100%	100%
B67	95%	100%	B46	100%	100%	A2	5%	100%	B57	100%	100%
B81	95%	100%	B49	100%	100%	A24	5%	100%	B58	100%	100%
B42	90%	100%	B50	100%	100%	A25	5%	100%	B60	100%	100%
B55	90%	100%	B53	100%	100%	A26	5%	100%	B61	100%	100%
B75	90%	100%	B54	100%	100%	A3	5%	100%	B63	100%	100%
B76	90%	100%	B56	100%	100%	A33	5%	100%	B67	100%	100%
B8	90%	100%	B62	100%	100%	A34	5%	100%	B7	100%	100%
B39	85%	100%	B63	100%	100%	A36	5%	100%	B73	100%	100%
B50	75%	100%	B71	100%	100%	A66	5%	100%	A32	95%	100%
B72	75%	100%	B72	100%	100%	A68	5%	100%	B81	95%	100%
Cw2	75%	100%	B8	100%	100%	B18	5%	100%	B82	95%	100%
B49	70%	100%	A11	95%	100%	B35	5%	100%	B48	90%	100%
B56	70%	100%	A3	95%	100%	B38	5%	100%	A25	85%	100%
B71	70%	100%	A66	95%	100%	B39	5%	100%	A23	80%	100%
B77	70%	100%	B51	95%	100%	B45	5%	100%	A30	70%	50%
B54	65%	100%	B52	95%	100%	B48	5%	100%	A66	65%	50%
B18	60%	100%	B64	95%	100%	B49	5%	100%	A6602	55%	100%
B59	55%	100%	B65	95%	100%	B51	5%	100%	B45	50%	100%
Cw17	55%	100%	B75	95%	100%	B52	5%	100%	Cw2	50%	100%
A66	55%	50%	B77	95%	100%	B53	5%	100%	B46	35%	100%
B35	50%	100%	B78	95%	100%	B54	5%	100%	A2403	30%	100%
B64	50%	100%	A36	90%	100%	B56	5%	100%	B2708	30%	100%
A6602	45%	100%	B39	90%	100%	B59	5%	100%	A11	30%	50%
B45	40%	100%	A1	85%	100%	B61	5%	100%	A203	25%	100%

**Table 23. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by Single Antigen - class I**

<b>Method: Luminex - SAB, cont.</b>											
<b>*** Serum 1329 ***</b>			<b>*** Serum 1330 ***</b>			<b>*** Serum 1331 ***</b>			<b>*** Serum 1332 ***</b>		
19 typing Labs			19 typing Labs			16 typing Labs			19 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
B2708	30%	100%	B59	85%	100%	B62	5%	100%	A80	20%	100%
B52	30%	100%	Cw10	80%	100%	B63	5%	100%	B62	20%	100%
B78	30%	100%	A43	75%	100%	B64	5%	100%	B703	20%	100%
B37	25%	100%	Cw9	70%	100%	B65	5%	100%	B76	20%	100%
Bw6	25%	100%	A74	55%	100%	B7	5%	100%	B8101	20%	100%
B2705	20%	100%	B57	35%	100%	B71	5%	100%	Cw1	20%	100%
B3901	20%	100%	A2403	30%	100%	B72	5%	100%	A1102	15%	100%
B46	20%	100%	A203	25%	100%	B75	5%	100%	B2705	15%	100%
B65	20%	100%	B41	25%	100%	B77	5%	100%	B39	15%	100%
B703	20%	100%	A30	25%	50%	B78	5%	100%	B49	15%	100%
B8101	20%	100%	A6601	20%	100%	B8	5%	100%	B50	15%	100%
B82	20%	100%	A6602	20%	100%	B82	5%	100%	B72	15%	100%
B40	10%	100%	B3901	20%	100%	B8201	5%	100%	Cw14	15%	100%
B63	10%	100%	B58	20%	100%	Bw6	5%	100%	A31	10%	100%
Bw4	10%	100%	A1101	15%	100%	Cw1	5%	100%	A33	10%	100%
B16	5%	100%	A1102	15%	100%	Cw10	5%	100%	B15	10%	100%
B4005	5%	100%	B7801	15%	100%	Cw12	5%	100%	B38	10%	100%
B57	5%	100%	Bw6	15%	100%	Cw15	5%	100%	B40	10%	100%
B7C	5%	100%	B15	10%	100%	Cw16	5%	100%	B59	10%	100%
B8C	5%	100%	Bw4	10%	100%	Cw17	5%	100%	B8201	10%	100%
Cw18	5%	100%	Cw3	10%	100%	Cw18	5%	100%	Bw6	10%	100%
Cw6	5%	100%	A10	5%	100%				Cw17	10%	100%
			A10C	5%	100%				A28	5%	100%
			A1C	5%	100%				A2C	5%	100%

**Table 24. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by C1q - class II**

Method: Luminex - C1q											
<b>*** Serum 1329 ***</b>			<b>*** Serum 1330 ***</b>			<b>*** Serum 1331 ***</b>			<b>*** Serum 1332 ***</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
DR7	25%	100%	DQ8	100%	100%	DR17	100%	100%	DQ4	100%	100%
NEG	50%	-	DQ9	100%	100%	DR18	100%	100%	DQ5	100%	100%
			DR53	100%	100%	DR52	100%	100%	DQ6	100%	100%
			DQ2	50%	100%				DQ7	100%	100%
			DQ4	50%	100%				DQ8	100%	100%
			DQ7	50%	100%				DQ9	100%	100%
			DQA1*02	50%	100%				DR15	50%	100%
			DQA1*03	50%	100%				DR51	50%	100%
			DR10	50%	100%						

**Table 25. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by PRA - class II**

Method: Luminex - PRA											
*** Serum 1329 ***			*** Serum 1330 ***			*** Serum 1331 ***			*** Serum 1332 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DR11	33%	100%	DR53	67%	100%	DQ4	33%	100%	DR7	50%	100%
DR17	33%	100%	DR7	67%	100%	DQ5	33%	100%	DQ4	33%	100%
DR18	33%	100%	DR9	67%	100%	DQ6	33%	100%	DQ5	33%	100%
DR52	33%	100%	DQ4	33%	100%	DQ7	33%	100%	DQ6	33%	100%
DR7	33%	100%	DQ7	33%	100%	DQ8	33%	100%	DQ7	33%	100%
DR9	33%	100%	DQ8	33%	100%	DQ9	33%	100%	DQ8	33%	100%
			DQ9	33%	100%	DR1	33%	100%	DQ9	33%	100%
			DR10	33%	100%	DR103	33%	100%	DR1	33%	100%
			DR11	33%	100%	DR12	33%	100%	DR10	33%	100%
			DR4	33%	100%	DR13	33%	100%	DR103	33%	100%
						DR15	33%	100%	DR11	33%	100%
						DR16	33%	100%	DR12	33%	100%
						DR17	33%	100%	DR13	33%	100%
						DR18	33%	100%	DR14	33%	100%
						DR51	33%	100%	DR15	33%	100%
									DR16	33%	100%
									DR4	33%	100%
									DR51	33%	100%
									DR53	33%	100%
									DR8	33%	100%
									DR9	33%	100%

**Table 26. Summary of the 584<sup>th</sup> Serum Exchange (Serum #1329-1332) by Single Antigen - class II**

Method: Luminex - SAB											
*** Serum 1329 ***			*** Serum 1330 ***			*** Serum 1331 ***			*** Serum 1332 ***		
18 typing Labs			18 typing Labs			18 typing Labs			18 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DP11	100%	100%	DQ4	100%	100%	DR17	94%	100%	DPw5	100%	100%
DP13	100%	100%	DR10	100%	100%	DR18	94%	100%	DQ4	100%	100%
DP17	100%	100%	DR4	100%	100%	DR52	88%	33%	DQ5	100%	100%
DP18	100%	100%	DR53	100%	100%	DPw3	61%	100%	DQ6	100%	100%
DP19	100%	100%	DR9	100%	100%	DPw6	56%	100%	DQ7	100%	100%
DPw1	100%	100%	DQ8	94%	100%	DP14	50%	100%	DQ8	100%	100%
DPw2	100%	100%	DQ9	94%	100%	DP19	44%	100%	DQ9	100%	100%
DPw3	100%	100%	DR14	94%	67%	DP9	44%	100%	DR1	100%	100%
DPw5	100%	100%	DR7	83%	100%	DPw1	44%	100%	DR10	100%	100%
DPw6	100%	100%	DR1	78%	50%	DP11	44%	50%	DR103	100%	100%
DR53	100%	100%	DQ2	72%	80%	DPw5	44%	50%	DR11	100%	100%
DP14	94%	100%	DQA1*02	61%	100%	DP17	39%	100%	DR12	100%	100%
DP28	94%	100%	DQA1*03	61%	100%	DP20	39%	100%	DR13	100%	100%
DP9	94%	100%	DQ7	56%	80%	DQ2	39%	100%	DR14	100%	100%
DR11	94%	100%	DQA1*04	50%	100%	DP13	39%	67%	DR15	100%	100%
DR7	88%	100%	DQA1*06	50%	100%	DP10	25%	100%	DR16	100%	100%
DR9	88%	100%	DQA1*05	22%	100%	DQA1*05	28%	100%	DR4	100%	100%
DP10	78%	100%	DR1404	22%	100%	DPA1*02	17%	100%	DR51	100%	100%
DP20	78%	100%	DQ3	6%	100%	DPA1*03	17%	100%	DR7	100%	100%
DPw4	67%	50%	DQA1*01	6%	100%	DR3	11%	100%	DR8	100%	100%
DP402	39%	100%				DP26	6%	100%	DR9	100%	100%
DPA1*02	33%	100%				DPA1*01	6%	100%	DR53	78%	50%
DP15	22%	100%				DQA1*04	6%	100%	DQA1*01	44%	100%
DPA1*03	22%	100%				DR14	6%	100%	DQA1*03	39%	100%
DPA1*04	22%	100%							DQA1*06	39%	100%
DPA1*01	17%	100%							DQA1*04	28%	100%
DP26	6%	100%							DQA1*05	17%	100%
DR10	6%	100%							DR1403	17%	100%
DR5	6%	100%							DR1404	17%	100%



**Table 27. Individual laboratory results for Serum #1329 - 1332 by NIH-Standard - class I**

		**** Serum 1329 ****			**** Serum 1330 ****					**** Serum 1331 ****		**** Serum 1332 ****						
Ctr	% POS	B13	Other	% POS	A2	A33	A68	A69	Other	% POS	Other	% POS	B27	B40	B7	Other	Method	
786		+			+	+	+	+			NT			+	+	+		STD

STD = Standard-NIH

**Table 28. Individual laboratory results for Serum #1329 - 1332 by Antiglobulin - class I**

**** Serum 1329 ****				**** Serum 1330 ****						*** Serum 1331 ***		**** Serum 1332 ****							
Ctr	% POS	B13	Other	% POS	A10	A2	A33	A68	A69	Other	% POS	Other	% POS	B27	B60	B61	B7	Other	Method
786		+			+	+	+	+	+			NT		+	+	+	+		Antiglobulin

**Table 29. Individual laboratory results for Serum #1329 - 1332 by C1q - class I**

Ctr	**** Serum 1329 ****						**** Serum 1330 ****								**** Serum 1331 ****				**** Serum 1332 ****								Method				
	% POS	B13	B60	B61	B7	Other	% POS	A2	A25	A33	A34	A66	A68	A69	A26	Other	% POS			Other	% POS	A2	B27	B60	B61	B7		B81	A69	B13	Other
786		+						+	+	+	+	+	+	+			NT					+	+	+	+	+	+				C1q
2400		+	+	+	+			+	+	+	+	+	+	+	+		0					+	+	+	+	+	+	+	+	B48,B47,B73	C1q
3753		+						+	+	+	+	+	+	+	+		0					+	+	+	+	+	+				C1q

**Table 30. Individual laboratory results for Serum #1329 - 1332 by PRA - class I**

**** Serum 1329 ****																	**** Serum 1330 ****																						
Ctr	% POS	B13	B18	B27	B39	B41	B42	B47	B48	B54	B55	B56	B60	B61	B62	B67	B7	Other	% POS	A66	B18	B49	B50	B54	B56	B71	B72	B8	A1	A2	A24	A25	A26	A3	A33	Other	Method		
2400	59																		93																				LMX-PRA
3753	74	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B73,B8,B81	96	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B53,A34,A68,A69 >	LMX-PRA
8058	0																		39	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B60,B61,B48,B62 >	LMX-PRA

**** Serum 1331 ****																	**** Serum 1332 ****																						
Ctr	% POS	A1	A25	A30	A32	A66	A68	A69	B13	B27	B42	B47	B48	B54	B55	B56	B57	Other	% POS	A2	A23	A24	A25	A32	A68	A69	B13	B27	B42	B54	B56	B57	B58	B60	B61	Other	Method		
2400	0																		86																			LMX-PRA	
3753	0																		88	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B7,B63,B73,B81	LMX-PRA	
8058	33	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B60,B61,B82,B7 >	0																				LMX-PRA

**Table 31. Individual laboratory results for Serum #1329 by Luminex SAB - class I**

		**** Serum 1329 ****																																		
Ctr	% POS	B13	B27	B47	B60	B61	B7	B73	B38	B41	B48	B62	B67	B81	B42	B55	B75	B76	B8	B39	B50	B72	Cw2	B49	B56	B71	B77	B54	B18	B59	Cw17	A66	Other	Method		
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B52,B82,B4,A*66:02, B*57:03 >	LMX-SAB		
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B52,B64,B37,B2708	LMX-SAB		
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B45,B64,B35	LMX-SAB		
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B64,B35,A6602	LMX-SAB		
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	LMX-SAB		
3224	39	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B52,B45,B64,B35 >	LMX-SAB		
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A6602	LMX-SAB		
3766	89	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B8101,B2705,B2708,A6602 >	LMX-SAB		
3808	18	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B703,B8101,B2705,B2708 >	LMX-SAB		
3966	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B45,B64,B35	LMX-SAB	
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw6,B78,B52,B82 >	LMX-SAB	
5219	18	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B40,B703,B16,B8101 >	LMX-SAB	
6649	38	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B45,B64,B35	LMX-SAB	
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B52,B82,B45 >	LMX-SAB
8086	46	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B52,B82,B45 >	LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B703,Bw4,Bw6,B2708 >	LMX-SAB
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B40,B703,B8101,B2705 >	LMX-SAB
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	LMX-SAB
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B35,B4005	LMX-SAB
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A6602	LMX-SAB



**Table 33. Individual laboratory results for Serum #1331 by Luminex SAB - class I**

**** Serum 1331 ****											
Ctr	% POS	A69	B46	B55	Cw14	Cw2	Cw4	Cw5	Cw7	Other	Method
615	0										LMX-SAB
725		+									LMX-SAB
786	NT										LMX-SAB
910	0										LMX-SAB
2400	0										LMX-SAB
3224	0										LMX-SAB
3753	0										LMX-SAB
3766	0										LMX-SAB
3808	0										LMX-SAB
3966	53	+	+	+		+				A11,A24,A2,B61 >	LMX-SAB
4322	NT										LMX-SAB
5219	0		+				+	+	+		LMX-SAB
6649	0										LMX-SAB
8082					+	+	+		+	Cw1,Cw12,Cw16,Cw17 >	LMX-SAB
8086	0										LMX-SAB
8098		+	+	+						B82,B45,Bw6,B8201	LMX-SAB
8103					+			+			LMX-SAB
8112	0										LMX-SAB
8125	NT										LMX-SAB
8128	0										LMX-SAB

**Table 34. Individual laboratory results for Serum #1332 by Luminex SAB - class I**

		**** Serum 1332 ****																																			
Ctr	% POS	A2	A24	A68	A69	B13	B27	B42	B47	B54	B55	B56	B57	B58	B60	B61	B63	B67	B7	B73	A32	B81	B82	B48	A25	A23	A30	A66	A6602	B45	Cw2	B46	A2403	B2708	Other	Method	
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			A11,B62,B49,B50,B*44:02, A*34:01>	LMX-SAB	
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							+		LMX-SAB	
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									A11,B76	LMX-SAB
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									A1102, A*30:02	LMX-SAB
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+										LMX-SAB
3224	39	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									B62,A1102,A*30:02	LMX-SAB
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+										LMX-SAB
3766	94	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A11,A203,B8101,B2705, A*11:02,A*30:02 >	LMX-SAB
3808	33	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							+	+	A203,B703,B8101,B2705	LMX-SAB
3966	43	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									A11,A80,B76,Cw1	LMX-SAB
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									B62,B49,B50,A80 >	LMX-SAB
5219	33	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									A203,B40,B15,B703 >	LMX-SAB
6649	37	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+										LMX-SAB
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									Cw4,B62,B49,B50 >	LMX-SAB
8086	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									A11	LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									A203,B703,Bw4,Bw6 >	LMX-SAB
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									A203,B40,B15,B703 >	LMX-SAB
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+										LMX-SAB
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									A11,B76	LMX-SAB
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+										LMX-SAB



**Table 35. Individual laboratory results for Serum #1329 - #1332 by C1q - class II**

**** Serum 1329 ****				**** Serum 1330 ****						**** Serum 1331 ****				**** Serum 1332 ****											
Ctr	% POS	DR7	Other	% POS	DQ8	DQ9	DR53	DQ2	DQ4	Other	% POS	DR17	DR18	DR52	Other	% POS	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	Other	Method	
2400		+			+	+	+			DR10,DQA1*02,DQA1*03		+	+	+			+	+	+	+	+	+	+	DR15,DR51	C1q
3753	0				+	+	+	+	+	DQ7		+	+	+	DRB3*01:01		+	+	+	+	+	+	+		C1q

**Table 36. Individual laboratory results for Serum #1329 - #1332 by Luminex PRA - class II**

**** Serum 1329 ****													**** Serum 1330 ****											
Ctr	% POS	DR11	DR17	DR18	DR52	DR7	DR9					Other	% POS	DR53	DR7	DR9	DQ4	DQ7	DQ8	DQ9	DR10	Other	Method	
2400	94												60											LMX-PRA
3753	43	+				+	+						77	+	+	+	+	+	+	+	+	DR4	LMX-PRA	
8058	3		+	+	+								3	+	+	+						DR11	LMX-PRA	

**** Serum 1331 ****													**** Serum 1332 ****											
Ctr	% POS	DR17	DR18	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR1	DR103	Other	% POS	DR7	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR1	Other	Method	
2400	34												100											LMX-PRA
3753	23	+	+									DRB3*01:01	97	+	+	+	+	+	+	+	+	DR103,DR4,DR8,DR9 >	LMX-PRA	
8058	39			+	+	+	+	+	+	+	+	DR12,DR13,DR15,DR16 >	1	+									LMX-PRA	

**Table 37. Individual laboratory results for Serum #1329 by Luminex Single Antigen - class II**

		**** Serum 1329 ****																								
Ctr	% POS	DP11	DP13	DP17	DP18	DP19	DPw1	DPw2	DPw3	DPw5	DPw6	DR53	DP14	DP28	DP9	DR11	DR7	DR9	DP10	DP20	DPw4	DP402	DPA1*02	Other	Method	
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		DR10,DP15	LMX-SAB
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
3224	35	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
3766	74	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
3808	28	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
3966	37	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+ DPA1*01,DPA1*03,DPA1*04	LMX-SAB
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+ DPA1*01,DPA1*03,DPA1*04	LMX-SAB
5219	28	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		DR5,DP15	LMX-SAB
6649	37	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+ DPA1*01,DPA1*03,DPA1*04	LMX-SAB
8086	38	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		DP15	LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+ DP15	LMX-SAB
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	LMX-SAB
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		DP26	LMX-SAB
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB

**Table 38. Individual laboratory results for Serum #1330 by Luminex Single Antigen - class II**

		**** Serum 1330 ****																				
Ctr	% POS	DQ4	DR10	DR4	DR53	DR9	DQ8	DQ9	DR14	DR7	DR1	DQ2	DQA1*02	DQA1*03	DQ7	DQA1*04	DQA1*06	DQA1*05	DR1404	Other	Method	
615		+	+	+	+	+	+	+	+	+	+	+			+						DRB1*14:01,DRB1*14:54	LMX-SAB
910		+	+	+	+	+	+	+	+	+	+	+	+	+			+	+			DRB1*14:01, DRB1*14:54, DQA1*02:01, DQA1*03:01, DQA1*05:05, DQA1*06:01	LMX-SAB
2400		+	+	+	+	+	+	+	+	+	+	+	+	+		+	+					LMX-SAB
3224	34	+	+	+	+	+	+	+	+	+	+	+	+	+		+					DRB1*14:01,DRB1*14:54	LMX-SAB
3753		+	+	+	+	+	+	+	+	+	+	+			+						DRB1*14:01	LMX-SAB
3766	88	+	+	+	+	+	+	+	+	+	+	+			+							LMX-SAB
3808	32	+	+	+	+	+	+	+	+	+			+	+		+	+			+		LMX-SAB
3966	29	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
5219	31	+	+	+	+	+	+	+	+	+			+	+		+	+			+		LMX-SAB
6649	35	+	+	+	+	+	+	+	+	+	+	+			+							LMX-SAB
8082		+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+				LMX-SAB
8086	34	+	+	+	+	+	+	+	+	+	+	+			+							LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+		+	+		+	+			+	DQA1*01	LMX-SAB
8103		+	+	+	+	+	+	+	+	+	+		+	+		+	+			+	DQ3	LMX-SAB
8112		+	+	+	+	+	+	+	+			+			+							LMX-SAB
8125		+	+	+	+	+	+	+	+	+	+	+			+							LMX-SAB
8128		+	+	+	+	+			+	+	+	+	+	+								LMX-SAB

**Table 39. Individual laboratory results for Serum #1331 by Luminex Single Antigen - class II**

		**** Serum 1331 ****																		
Ctr	% POS	DR17	DR18	DR52	DPw3	DPw6	DP14	DP19	DP9	DPw1	DP11	DPw5	DP17	DP20	DQ2	DP13	DP10	DQA1*05	Other	Method
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DRB3*01:01, DQA1*05:01	LMX-SAB
910		+	+																DRB3*01:01	LMX-SAB
2400		+	+	+																LMX-SAB
3224	18	+	+		+	+	+	+			+	+	+	+				+	DRB3*01:01	LMX-SAB
3753		+	+	+															DRB3*01:01	LMX-SAB
3766	34	+	+	+	+	+	+		+	+				+					DRB3*01:01, DQA1*05:01	LMX-SAB
3808	6	+	+	+																LMX-SAB
3966		+	+	+	+	+		+		+	+	+				+	+		DPA1*02,DPA1*03	LMX-SAB
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPA1*01,DPA1*02,DPA1*03,DQA1*04	LMX-SAB
5219	6			+															DR3	LMX-SAB
6649	12	+	+	+																LMX-SAB
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPA1*02,DPA1*03	LMX-SAB
8086	26	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+	+	+			+	+			LMX-SAB
8103		+	+	+	+	+	+												DR3	LMX-SAB
8112		+	+	+																LMX-SAB
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			DR14,DP26	LMX-SAB
8128		+	+	+	+															LMX-SAB

**Table 40. Individual laboratory results for Serum #1332 by Luminex Single Antigen - class II**

		**** Serum 1332 ****																												
Ctr	% POS	DPw5	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR1	DR10	DR103	DR11	DR12	DR13	DR14	DR15	DR16	DR4	DR51	DR7	DR8	DR9	DR53	DQA1*01	DQA1*03	DQA1*06	DQA1*04	Other	Method	
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB
3224	56	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						LMX-SAB
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB
3766	99	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB
3808	63	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DR1403,DR1404	LMX-SAB	
3966	59	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DQA1*02,DQA1*05	LMX-SAB	
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DQA1*02,DQA1*05	LMX-SAB	
5219	63	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DR2,DR5,DR6,DR1403 >	LMX-SAB	
6649	59	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DR52,DQA1*05	LMX-SAB	
8086	58	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DR1403,DR1404	LMX-SAB	
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DQ3	LMX-SAB	
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					DPw2	LMX-SAB	
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							LMX-SAB

**Table 41. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by NIH-Standard - class I**

Method: NIH-Standard											
<b>*** Serum 1333 ***</b>			<b>*** Serum 1334 ***</b>			<b>*** Serum 1335 ***</b>			<b>*** Serum 1336 ***</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			NT			no consensus			no consensus		

**Table 42. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by Antiblogulin - class I**

Method: Antiglobulin											
<b>*** Serum 1333 ***</b>			<b>*** Serum 1334 ***</b>			<b>*** Serum 1335 ***</b>			<b>*** Serum 1336 ***</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			NT			no consensus			no consensus		



**Table 43. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by C1q - class I**

Method: C1q											
*** Serum 1333 ***			*** Serum 1334 ***			*** Serum 1335 ***			*** Serum 1336 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
B18	100%	100%	B73	67%	100%	A23	100%	100%	A1	100%	100%
B35	100%	100%	Cw12	67%	100%	A24	100%	100%	A25	100%	100%
B49	100%	100%	Cw16	67%	100%	A25	100%	100%	A32	100%	100%
B50	100%	100%	Cw7	67%	100%	A32	100%	100%	B49	100%	100%
B51	100%	100%	Cw8	67%	100%	B38	100%	100%	B51	100%	100%
B52	100%	100%	Cw10	33%	100%	B49	100%	100%	A23	67%	100%
B53	100%	100%				B57	100%	100%	A24	67%	100%
B62	100%	100%				B58	100%	100%	B52	67%	100%
B71	100%	100%				B59	100%	100%	B53	67%	100%
B72	100%	100%				B63	100%	100%	B63	67%	100%
B75	100%	100%				B53	67%	100%	B77	67%	100%
B77	100%	100%				B77	67%	100%	B78	67%	100%
B78	100%	100%				Cw2	67%	100%	B57	33%	100%
Cw4	100%	100%				B51	33%	100%			
B56	67%	100%				Bw4	33%	100%			
B39	33%	100%									
B46	33%	100%									
B54	33%	100%									
B63	33%	100%									

**Table 44. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by PRA**

Method: Luminex - PRA											
*** Serum 1333 ***			*** Serum 1334 ***			*** Serum 1335 ***			*** Serum 1336 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
B51	67%	100%	NEG	33%	-	A23	67%	100%	NEG	33%	-
B62	67%	100%	A25	33%	100%	A24	67%	100%	A1	33%	100%
A25	33%	100%	A34	33%	100%	A26	67%	100%	A23	33%	100%
A66	33%	100%	A68	33%	100%	A32	67%	100%	A24	33%	100%
A68	33%	100%	B38	33%	100%	A33	67%	100%	A32	33%	100%
B18	33%	100%	B54	33%	100%	A34	67%	100%	A33	33%	100%
B35	33%	100%	Cw7	33%	100%	A66	67%	100%	A80	33%	100%
B37	33%	100%				A68	67%	100%	B13	33%	100%
B38	33%	100%				A69	67%	100%	B18	33%	100%
B39	33%	100%				B38	67%	100%	B27	33%	100%
B42	33%	100%				B44	67%	100%	B35	33%	100%
B45	33%	100%				B49	67%	100%	B38	33%	100%
B48	33%	100%				B52	67%	100%	B47	33%	100%
B49	33%	100%				B53	67%	100%	B49	33%	100%
B50	33%	100%				B57	67%	100%	B50	33%	100%
B52	33%	100%				B58	67%	100%	B52	33%	100%
B53	33%	100%				B63	67%	100%	B53	33%	100%
B54	33%	100%				A1	33%	100%	B54	33%	100%
B56	33%	100%				A2	33%	100%	B56	33%	100%
B57	33%	100%				A25	33%	100%	B57	33%	100%
B58	33%	100%				B13	33%	100%	B58	33%	100%
B59	33%	100%				B27	33%	100%	B62	33%	100%
B60	33%	100%				B37	33%	100%	B63	33%	100%
B63	33%	100%				B47	33%	100%	B72	33%	100%
B65	33%	100%				B51	33%	100%	B77	33%	100%
B7	33%	100%				B77	33%	100%	B78	33%	100%
B71	33%	100%				Bw4	33%	100%	B8	33%	100%
B72	33%	100%				Cw2	33%	100%			
B75	33%	100%				Cw6	33%	100%			
B77	33%	100%									
B78	33%	100%									
B8	33%	100%									

**Table 45. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by Single Antigen - class I**

Method: Luminex - SAB											
*** Serum 1333 ***			*** Serum 1334 ***			*** Serum 1335 ***			*** Serum 1336 ***		
20 typing Labs			20 typing Labs			20 typing Labs			20 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
B18	100%	100%	B73	100%	100%	A2	100%	100%	A1	100%	100%
B35	100%	100%	Cw12	100%	100%	A23	100%	100%	A23	100%	100%
B37	100%	100%	Cw16	100%	100%	A25	100%	100%	A24	100%	100%
B38	100%	100%	Cw7	100%	100%	A32	100%	100%	A25	100%	100%
B41	100%	100%	Cw8	100%	100%	A33	100%	100%	A32	100%	100%
B42	100%	100%	B38	95%	100%	A34	100%	100%	A36	100%	100%
B45	100%	100%	B67	95%	100%	A68	100%	100%	B13	100%	100%
B46	100%	100%	B39	85%	100%	A69	100%	100%	B18	100%	100%
B49	100%	100%	Cw10	85%	100%	B13	100%	100%	B35	100%	100%
B50	100%	100%	Cw17	85%	100%	B37	100%	100%	B37	100%	100%
B51	100%	100%	Cw9	85%	100%	B44	100%	100%	B38	100%	100%
B52	100%	100%	A68	75%	100%	B47	100%	100%	B44	100%	100%
B53	100%	100%	B46	75%	100%	B49	100%	100%	B49	100%	100%
B54	100%	100%	B54	75%	100%	B51	100%	100%	B50	100%	100%
B55	100%	100%	A33	70%	100%	B52	100%	100%	B51	100%	100%
B56	100%	100%	A34	70%	100%	B53	100%	100%	B52	100%	100%
B57	100%	100%	A25	65%	100%	B57	100%	100%	B53	100%	100%
B60	100%	100%	B8	65%	100%	B58	100%	100%	B56	100%	100%
B61	100%	100%	B18	60%	100%	B59	100%	100%	B57	100%	100%
B62	100%	100%	B41	60%	100%	B63	100%	100%	B58	100%	100%
B63	100%	100%	B42	60%	100%	B77	100%	100%	B59	100%	100%
B64	100%	100%	B59	60%	100%	A24	95%	100%	B62	100%	100%
B65	100%	100%	Cw18	55%	100%	A26	95%	100%	B63	100%	100%
B67	100%	100%	A66	45%	100%	B38	95%	100%	B64	100%	100%
B7	100%	100%	A80	45%	100%	Cw2	95%	100%	B65	100%	100%
B71	100%	100%	A11	35%	100%	A66	85%	100%	B71	100%	100%
B75	100%	100%	B55	35%	100%	B27	75%	100%	B72	100%	100%
B76	100%	100%	B64	35%	100%	Cw6	70%	100%	B75	100%	100%
B77	100%	100%	A26	30%	100%	Cw5	55%	100%	B76	100%	100%
B8	100%	100%	A36	30%	100%	Cw18	45%	100%	B77	100%	100%
B82	100%	100%	A69	30%	100%	B2705	40%	100%	Cw15	100%	100%
Cw4	100%	100%	Cw4	25%	100%	Bw4	40%	100%	Cw17	100%	100%
B58	95%	100%	A23	20%	100%	Cw15	35%	100%	Cw18	100%	100%
B59	95%	100%	B3901	20%	100%	A203	25%	100%	Cw5	100%	100%
B72	95%	100%	Cw6	20%	100%	A2403	25%	100%	Cw6	100%	100%

**Table 45. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by Single Antigen - class I**

Method: Luminex - SAB, cont.											
*** Serum 1333 ***			*** Serum 1334 ***			*** Serum 1335 ***			*** Serum 1336 ***		
20 typing Labs			20 typing Labs			20 typing Labs			20 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
B78	95%	100%	A1	15%	100%	A6601	20%	100%	A33	95%	100%
Cw10	95%	100%	A43	15%	100%	A2C	10%	100%	B46	95%	100%
Cw9	95%	100%	B65	15%	100%	A6602	10%	100%	B47	95%	100%
A66	90%	100%	A6601	10%	100%	B15	10%	100%	B78	95%	100%
B39	90%	100%	A6602	10%	100%	Cw16	10%	100%	Cw10	95%	100%
B48	90%	100%	Cw2	10%	100%	Cw17	10%	100%	Cw2	95%	100%
B81	90%	100%	A1101	5%	100%	A10	5%	100%	Cw9	90%	100%
A25	85%	100%	A1102	5%	100%	A10C	5%	100%	B8	85%	100%
A34	85%	100%	A29	5%	100%	A28	5%	100%	Cw4	85%	100%
A68	85%	100%	B14	5%	100%	A9	5%	100%	B27	80%	100%
A33	80%	100%	B16	5%	100%	B12	5%	100%	B54	80%	100%
B73	75%	100%	B37	5%	100%	B16	5%	100%	A80	50%	100%
A69	70%	100%	Bw4	5%	100%	B17	5%	100%	B2705	45%	100%
B27	60%	100%	Bw6	5%	100%	B18	5%	100%	B48	40%	100%
B2708	55%	100%	Cw3	5%	100%	B5	5%	100%	Bw4	40%	100%
Bw6	40%	100%			B62	5%	100%	A2403	25%	100%	
B13	35%	100%						B39	25%	100%	
Cw18	35%	100%						B7801	20%	100%	
A26	20%	100%						B45	15%	100%	
A6601	20%	100%						A6601	10%	100%	
B3901	20%	100%						B14	10%	100%	
B7801	20%	100%						B15	10%	100%	
B8101	20%	100%						B5C	10%	100%	
B703	15%	100%						A29	5%	100%	
B8201	15%	100%						A2C	5%	100%	
Bw4	15%	100%						A43	5%	100%	
A6602	10%	100%						A66	5%	100%	
B14	10%	100%						A9	5%	100%	
B15	10%	100%						B12C	5%	100%	
B40	10%	100%						B16	5%	100%	
B5C	10%	100%						B17	5%	100%	
B8C	10%	100%						B21	5%	100%	
Cw12	10%	100%						B3901	5%	100%	
Cw3	10%	100%						B4005	5%	100%	
B12C	5%	100%						B5	5%	100%	

**Table 46. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by C1q - class II**

Method: Luminex - C1q											
<b>*** Serum 1333 ***</b>			<b>*** Serum 1334 ***</b>			<b>*** Serum 1335 ***</b>			<b>*** Serum 1336 ***</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
DQ4	100%	100%	DR8	100%	100%	NEG	50%	100%	DQ7	100%	100%
DR8	100%	100%				DR51	50%	100%	DQ8	100%	100%
									DQ9	100%	100%

**Table 47. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by PRA - class II**

Method: Luminex - PRA											
*** Serum 1333 ***			*** Serum 1334 ***			*** Serum 1335 ***			*** Serum 1336 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DQ4	67%	100%	NEG	33%	-	DR11	67%	100%	NEG	33%	-
DQ7	33%	100%	DQ4	33%	100%	DR15	67%	100%	DQ7	33%	100%
DQ8	33%	100%	DQ6	33%	100%	DR16	67%	100%	DQ8	33%	100%
DQ9	33%	100%	DR103	33%	100%	DR51	67%	100%	DQ9	33%	100%
DR11	33%	100%	DR11	33%	100%	DR8	67%	100%	DR4	33%	100%
DR12	33%	100%	DR12	33%	100%	DR9	67%	100%	DR53	33%	100%
DR13	33%	100%	DR13	33%	100%	DQ2	33%	100%			
DR14	33%	100%	DR16	33%	100%	DQ4	33%	100%			
DR17	33%	100%	DR8	33%	100%	DQ5	33%	100%			
DR18	33%	100%				DQ6	33%	100%			
DR8	33%	100%				DQ8	33%	100%			
						DR1	33%	100%			
						DR10	33%	100%			
						DR103	33%	100%			
						DR12	33%	100%			
						DR4	33%	100%			

**Table 48. Summary of the 585<sup>th</sup> Serum Exchange (Serum #1333-1336) by Single Antigen - class II**

Method: Luminex - SAB											
*** Serum 1333 ***			*** Serum 1334 ***			*** Serum 1335 ***			*** Serum 1336 ***		
18 typing Labs			18 typing Labs			18 typing Labs			18 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
DQ4	100%	100%	DQ4	100%	100%	DP14	100%	100%	DQ7	100%	100%
DQ8	100%	100%	DR103	100%	100%	DP17	100%	100%	DQ8	100%	100%
DQ9	100%	100%	DR11	100%	100%	DP28	100%	100%	DQ9	100%	100%
DR11	100%	100%	DR12	100%	100%	DP9	100%	100%	DR4	100%	100%
DR12	100%	100%	DR13	100%	100%	DPw3	100%	100%	DR53	94%	100%
DR13	100%	100%	DR16	100%	100%	DPw6	100%	100%	DQA1*03	83%	100%
DR14	100%	100%	DR8	100%	100%	DR1	100%	100%	DQA1*04	83%	100%
DR8	100%	100%	DQ6	89%	100%	DR10	100%	100%	DQA1*05	83%	100%
DR17	94%	100%	DR4	89%	100%	DR103	100%	100%	DQ4	67%	100%
DR18	89%	100%	DR51	89%	100%	DR11	100%	100%	DQA1*06	61%	100%
DQA1*05	56%	100%	DQ5	72%	100%	DR15	100%	100%	DQ2	44%	100%
DQA1*06	39%	100%	DQA1*03	33%	100%	DR16	100%	100%	DR9	33%	100%
DQ7	33%	100%	DQA1*01	28%	100%	DR51	100%	100%	DQ3	11%	100%
DQA1*03	28%	100%	DR7	28%	100%	DR8	100%	100%	DQA1*02	11%	100%
DQA1*04	28%	100%	DR1403	17%	100%	DR9	100%	100%	DR7	11%	100%
DR1403	17%	100%	DR1404	17%	100%	DPw2	94%	100%	DQ6	5%	100%
DR1404	17%	100%	DQA1*04	5%	100%	DR12	94%	100%	DR1	5%	100%
DQ3	11%	100%	DR1	5%	100%	DP20	83%	100%	DR10	5%	100%
DQA1*02	11%	100%	DR14	5%	100%	DP18	78%	100%	DR103	5%	100%
DR3	11%	100%	DR2	5%	100%	DPw4	72%	100%	DR11	5%	100%
DQ2	5%	100%	DR5	5%	100%	DP10	61%	100%	DR13	5%	100%
DR5	5%	100%				DP402	28%	100%	DR17	5%	100%
DR6	5%	100%				DPA1*04	22%	100%	DR51	5%	100%
						DPA1*01	17%	100%	DR52	5%	100%
						DR13	17%	100%			
						DPA1*02	11%	100%			
						DPA1*03	11%	100%			
						DPw1	11%	100%			
						DP13	5%	100%			
						DR18	5%	100%			
						DR2	5%	100%			
						DR5	5%	100%			

**Table 49. Individual laboratory results for Serum #1333 - 1336 by NIH-Standard - class I**

	**** Serum 1333 ****				**** Serum 1334 ****				**** Serum 1335 ****				**** Serum 1336 ****				
Ctr	% POS	B35	B51	Other	% POS		Other	% POS	A24	B57	Other	% POS	A1	Other	Method		
786		+	+		NT				+	+			+		STD		

Std = NIH-Standard



**Table 50. Individual laboratory results for Serum #1333 - 1336 by Antiglobulin - class I**

Ctr	**** Serum 1333 ****							**** Serum 1334 ****				**** Serum 1335 ****					**** Serum 1336 ****			Method	
	% POS	B15	B35	B51	B62	B53	Other	% POS		Other	% POS	A23	A24	B57	B58	Other	% POS	A1	B51		Other
786		+	+	+	+	+		NT				+	+	+	+			+	+		Antiglobulin

**Table 51. Individual laboratory results for Serum #1333 - 1336 by C1q - class I**

**** Serum 1333 ****																	**** Serum 1334 ****																	
Ctr	% POS	B18	B35	B49	B50	B51	B52	B53	B62	B71	B72	B75	B77	B78	Cw4	B56	Other	% POS	B73	Cw12	Cw16	Cw7	Cw8									Other	Method	
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+																			C1q
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+										Cw10	C1q
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B54,B63,B39,B46		+	+	+	+	+											C1q

**** Serum 1335 ****																	**** Serum 1336 ****																	
Ctr	% POS	A23	A24	A25	A32	B38	B49	B57	B58	B59	B63	B53	B77	Cw2			Other	% POS	A1	A25	A32	B49	B51	A23	A24	B52	B53	B63	B77	B78	Other	Method		
786		+	+	+	+	+	+	+	+	+	+	+	+						+	+	+	+	+											C1q
2400		+	+	+	+	+	+	+	+	+	+	+	+	+			B51		+	+	+	+	+	+	+	+	+	+	+	+	+	B57	C1q	
3753		+	+	+	+	+	+	+	+	+	+	+	+	+			Bw4		+	+	+	+	+	+	+	+	+	+	+	+	+			C1q

**Table 52. Individual laboratory results for Serum #1333 - 1336 by PRA - class I**

**** Serum 1333 ****																	**** Serum 1334 ****																								
Ctr	% POS	B51	B62	A25	A66	A68	B18	B35	B37	B38	B39	B42	B45	B48	B49	B50	B52	B53	Other	% POS	A25	A34	A68	B38	B54	Cw7														Other	Method
2400	100																			57																					LMX-PRA
3753	98	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	B60,B78,B7,B54 >	66	+	+	+	+	+	+															LMX-PRA
8058	5	+	+																B75	0																				LMX-PRA	

**** Serum 1335 ****																	**** Serum 1336 ****																									
Ctr	% POS	A23	A24	A26	A32	A33	A34	A66	A68	A69	B38	B44	B49	B52	B53	B57	B58	B63	Other	% POS	A1	A23	A24	A32	A33	A80	B13	B18	B27	B35	B38	B47	B49	B50	B52	B53	B54	Other	Method			
2400	93																			96																						LMX-PRA
3753	82	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A2,A25,Bw4	98	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B78,B62,B56,B63 >	LMX-PRA	
8058	35	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw6,B13,B47,B27 >	0																						LMX-PRA

**Table 53. Individual laboratory results for Serum #1333 by Single Antigen - class I**

		**** Serum 1333 ****																																																						
Ctr	% POS	B18	B35	B37	B38	B41	B42	B45	B46	B49	B50	B51	B52	B53	B54	B55	B56	B57	B60	B61	B62	B63	B64	B65	B67	B7	B71	B75	B76	B77	B8	B82	Cw4	B58	B59	B72	B78	Cw10	Cw9	A66	B39	B48	B81	A25	A34	A68										
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
3224	61	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
3766	97	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
3808	47	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
3966	65	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
5219	43	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
6649	58	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

**Table 53. Individual laboratory results for Serum #1333 by Single Antigen - class I, cont.**

**** Serum 1333 ****									
Ctr	% POS	A33	B73	A69	B27	B2708	Bw6	Other	Method
615		+	+	+	+			B13,A26,Cw18	LMX-SAB
725						+			LMX-SAB
786		+	+	+	+			B13,A26,Cw18	LMX-SAB
910		+	+	+		+	+		LMX-SAB
2400		+			+				LMX-SAB
3224	61	+	+	+	+		+	B13,A26,Cw18	LMX-SAB
3753		+	+	+			+		LMX-SAB
3766	97	+	+	+	+	+		B8101,B7801,A6601,A6602 >	LMX-SAB
3808	47						+	B703,B8101,B7801,A6601 >	LMX-SAB
3966	65	+	+	+	+			B13,Cw1,Cw12,Cw15 >	LMX-SAB
4322		+	+	+			+	Cw6,B13,A26,Bw4 >	LMX-SAB
5219	43				+	+	+	B40,B15,B70,B21 >	LMX-SAB
6649	58	+	+	+	+				LMX-SAB
8082		+	+	+			+	B13,Cw18	LMX-SAB
8098							+	B703,Bw4,B8201,B3901	LMX-SAB
8100		+	+	+	+			B5C,B8C	LMX-SAB
8103		+	+		+	+		B40,B15,B14,B8101 >	LMX-SAB
8112		+	+	+	+				LMX-SAB
8125		+	+	+	+			Cw7,Cw18,B4005	LMX-SAB
8128		+	+	+		+		B13,Cw12	LMX-SAB

**Table 54. Individual laboratory results for Serum #1334 by Single Antigen**

		**** Serum 1334 ****																																		
Ctr	% POS	B73	Cw12	Cw16	Cw7	Cw8	B38	B67	B39	Cw10	Cw17	Cw9	A68	B46	B54	A33	A34	A25	B8	B18	B41	B42	B59	Cw18	A66	A80	A11	B55	B64	A26	A36	A69	Other	Method		
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,A1,A23,A43 >	LMX-SAB		
725		+	+	+	+	+	+	+	+	+	+	+	+		+		+																		LMX-SAB	
786		+	+	+	+	+				+		+																							LMX-SAB	
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				+								A6601, A*68:01	LMX-SAB
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+												LMX-SAB	
3224	38	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A23	LMX-SAB	
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+							+		LMX-SAB	
3766	94	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw6,A1101,A1102,A6601 >	LMX-SAB	
3808	11	+	+	+	+	+	+	+			+																								B3901	LMX-SAB
3966	34	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	LMX-SAB		
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,Cw6,A1,A23 >	LMX-SAB
5219	9	+	+	+	+	+	+	+	+		+																								B16,B3901	LMX-SAB
6649	24	+	+	+	+	+	+	+	+	+		+	+	+	+	+	+	+	+	+	+		+												LMX-SAB	
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4,Cw6,A1,A29 >	LMX-SAB
8098		+	+	+	+	+	+	+																											Bw4,Bw6,B3901	LMX-SAB
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+		+										LMX-SAB	
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B14,Cw3,A6602	LMX-SAB
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	LMX-SAB	
8125		+	+	+	+	+	+	+	+	+	+	+		+			+								+			+							Cw4,Cw6,Cw2	LMX-SAB
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw4	LMX-SAB

**Table 54. Individual laboratory results for Serum #1335 by Single Antigen**

		**** Serum 1335 ****																																						
Ctr	% POS	A2	A23	A25	A32	A33	A34	A68	A69	B13	B37	B44	B47	B49	B51	B52	B53	B57	B58	B59	B63	B77	A24	A26	B38	Cw2	A66	B27	Cw6	Cw5	Cw18	B2705	Bw4	Cw15	Other	Method				
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					LMX-SAB			
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					LMX-SAB		
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B18	LMX-SAB			
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB		
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB		
3224	42	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB	
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB	
3766	92	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A203,A2403,A6601,A6602	LMX-SAB		
3808	36	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A203,A2403,A6601	LMX-SAB		
3966	43	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB	
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw16,Cw17	LMX-SAB	
5219	34	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A9,A203,B15,A10 >	LMX-SAB		
6649	40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB	
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	Cw17	LMX-SAB	
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A203,A2403	LMX-SAB	
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A10C,A2C	LMX-SAB	
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A203,B15,A2403,A6601 >	LMX-SAB	
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB	
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B62,Cw16	LMX-SAB	
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB

**Table 55. Individual laboratory results for Serum #1336 by Single Antigen**

		**** Serum 1336 ****																																																		
Ctr	% POS	A1	A23	A24	A25	A32	A36	B13	B18	B35	B37	B38	B44	B49	B50	B51	B52	B53	B56	B57	B58	B59	B62	B63	B64	B65	B71	B72	B75	B76	B77	Cw15	Cw17	Cw18	Cw5	Cw6	A33	B46	B47	B78	Cw10	Cw2	Cw9									
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
3224	56	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
3766	98	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
3808	50	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
3966	57	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
5219	48	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
6649	55	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+



**Table 55. Individual laboratory results for Serum #1336 by Single Antigen, cont**

**** Serum 1336 ****											
Ctr	% POS	B8	Cw4	B27	B54	A80	B2705	B48	Bw4	Other	Method
615		+	+	+	+	+	+	+		B45,B39	LMX-SAB
725		+	+	+	+						LMX-SAB
786		+	+	+	+	+		+			LMX-SAB
910		+	+		+		+		+	A*33:01	LMX-SAB
2400		+	+	+							LMX-SAB
3224	56	+	+		+	+	+	+	+	B39	LMX-SAB
3753		+	+	+	+	+			+		LMX-SAB
3766	98	+	+	+	+	+	+	+		A66,A*66:01, B45,B39,A2403 >	LMX-SAB
3808	50			+			+			Cw403,A2403,B7801	LMX-SAB
3966	57	+	+	+	+	+		+			LMX-SAB
4322		+	+		+	+	+	+	+	B45,A29,A43,B39 >	LMX-SAB
5219	48		+	+			+		+	A9,B15,B70,B21 >	LMX-SAB
6649	55	+		+	+						LMX-SAB
8082		+	+	+	+				+		LMX-SAB
8098		+	+	+					+	Bw6,A2403	LMX-SAB
8100		+	+	+	+	+	+		+	B5C	LMX-SAB
8103		+	+	+	+		+			B15,B14,Cw3,A2403 >	LMX-SAB
8112		+		+	+						LMX-SAB
8125		+	+	+	+	+		+		B39,Cw16,B4005	LMX-SAB
8128		+	+		+	+	+	+			LMX-SAB

**Table 56. Individual laboratory results for Serum #1333 - #1336 by C1q - class II**

Ctr	**** Serum 1333 ****				**** Serum 1334 ****				**** Serum 1335 ****				**** Serum 1336 ****				Method
	% POS	DQ4	DR8	Other	% POS	DR8	Other	% POS	DR51	Other	% POS	DQ7	DQ8	DQ9	Other		
2400		+	+			+			+			+	+	+		C1q	
3753		+	+			+		0				+	+	+		C1q	

**Table 57. Individual laboratory results for Serum #1333 - #1336 by PRA - class II**

**** Serum 1333 ****									**** Serum 1334 ****							**** Serum 1335 ****							**** Serum 1336 ****									
Ctr	% POS	DQ4	DQ7	DQ8	DQ9	DR11	DR12	Other	% POS	DQ4	DQ6	DR103	DR11	DR12	DR13	Other	% POS	DR11	DR15	DR16	DR51	DR8	DR9	Other	% POS	DQ7	DQ8	DQ9	DR4	DR53	Other	Method
2400	69								80								86								63							LMX-PRA
3753	80	+	+	+	+	+	+	DR8,DR13,DR14,DR17>	90	+	+	+	+	+	+	DR8,DR16	77	+	+	+	+	+	+	DR1,DR103,DR10	67	+	+	+	+	+		LMX-PRA
8058	2	+							0								36	+	+	+	+	+	+	DR4,DR12,DQ2,DQ4>	0							LMX-PRA

**Table 58. Individual laboratory results for Serum #1333 - #1334 by Single Antigen - class II**

Ctr	**** Serum 1333 ****															**** Serum 1334 ****															Method				
	% POS	DQ4	DQ8	DQ9	DR11	DR12	DR13	DR14	DR8	DR17	DR18	DQA1*05	DQA1*06	DQ7	DQA1*03	DQA1*04	Other	% POS	DQ4	DR103	DR11	DR12	DR13	DR16	DR8	DQ6	DR4	DR51	DQ5	DQA1*03		DQA1*01	DR7	Other	
615		+	+	+	+	+	+	+	+	+	+	+	+						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DRB1*04:02, DRB5*01:01	LMX-SAB
910		+	+	+	+	+	+	+	+	+		+					DQA1*06:01		+	+	+	+	+	+	+	+	+	+					DRB1*04:02, DRB5*01:01	LMX-SAB	
2400		+	+	+	+	+	+	+				+		+					+	+	+	+	+	+	+	+	+	+						LMX-SAB	
3224	25	+	+	+	+	+	+	+	+	+	+	+	+					23	+	+	+	+	+	+	+	+	+	+		+	+		DRB1*04:02, DRB5*01:01	LMX-SAB	
3753		+	+	+	+	+	+	+	+	+				+			DQB1*03:19		+	+	+	+	+	+	+	+	+	+					DRB1*04:02, DRB5*01:01	LMX-SAB	
3766	81	+	+	+	+	+	+	+	+	+	+	+	+				DQA1*05:05, DQA1*06:01, DQA1*03:03, DQA1*03:02	51	+	+	+	+	+	+	+	+	+	+	+	+	+			DRB1*04:02, DRB5*01:01, DQA1*03:03, DQA1*01:01	LMX-SAB
3808	29	+	+	+	+	+	+	+	+	+	+					+	DR1403,DR1404	26	+	+	+	+	+	+	+	+	+	+					DR1403,DR1404	LMX-SAB	
3966	27	+	+	+	+	+	+	+	+	+	+	+	+		+		DQA1*02	22	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DQA1*02		+	+	+	+	+	+	+	+	+	+	+	+	+	+	DQA1*04	LMX-SAB	
5219	27	+	+	+	+	+	+	+	+	+	+				+	DR3,DR5,DR6,DR1403>	26	+	+	+	+	+	+	+	+	+	+	+					DR2,DR5,DR1403,DR1404	LMX-SAB	
6649	24	+	+	+	+	+	+	+	+	+	+	+						21	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB	
8082		+	+	+	+	+	+	+	+	+	+	+	+			+				+	+	+	+	+	+	+	+	+	+	+	+	+			LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+					+	DR1403,DR1404		+	+	+	+	+	+	+	+	+	+					DR1403,DR1404	LMX-SAB	
8100		+	+	+	+	+	+	+	+	+				+			DQ2		+	+	+	+	+	+	+	+	+	+						LMX-SAB	
8103		+	+	+	+	+	+	+	+			+			+	+	DR3,DQ3		+	+	+	+	+	+	+	+	+	+	+	+	+		DR1	LMX-SAB	
8112		+	+	+	+	+	+	+	+	+				+					+	+	+	+	+	+										LMX-SAB	
8125		+	+	+	+	+	+	+	+	+				+					+	+	+	+	+	+		+	+					DR14	LMX-SAB		
8128		+	+	+	+	+	+	+	+	+	+	+							+	+	+	+	+	+	+	+	+	+						LMX-SAB	

**Table 59. Individual laboratory results for Serum #1335 by Single Antigen - class II**

		**** Serum 1335 ****																								
Ctr	% POS	DP14	DP17	DP28	DP9	DPw3	DPw6	DR1	DR10	DR103	DR11	DR15	DR16	DR51	DR8	DR9	DPw2	DR12	DP20	DP18	DPw4	DP10	DP402	Other	Method	
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DRB1*12:02	LMX-SAB
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DRB1*12:02, DPB1*04:02	LMX-SAB
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX-SAB
3224	35	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPA1*04, DRB1*12:02	LMX-SAB
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX-SAB
3766	74	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DRB1*12:02, DPB1*04:02	LMX-SAB
3808	30	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR13	LMX-SAB
3966	39	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPw1,DP13	LMX-SAB
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPw1,DPA1*01,DPA1*02,DPA1*03 >	LMX-SAB
5219	30	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR2,DR5,DR13	LMX-SAB
6649	37	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX-SAB
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPA1*01,DPA1*04	LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR13	LMX-SAB
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX-SAB
8103		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX-SAB
8112		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPA1*01,DPA1*02,DPA1*03,DPA1*04	LMX-SAB
8125		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR18	LMX-SAB
8128		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX-SAB

**Table 60. Individual laboratory results for Serum #1336 by Single Antigen - class II**

**** Serum 1336 ****															
Ctr	% POS	DQ7	DQ8	DQ9	DR4	DR53	DQA1*03	DQA1*04	DQA1*05	DQ4	DQA1*06	DQ2	DR9	Other	Method
615		+	+	+	+	+	+	+	+	+	+		+	DRB1*09:02	LMX-SAB
910		+	+	+	+	+	+	+	+					DQA1*03:01, DQA1*03:03, DQA1*04:01, DQA1*05:01	LMX-SAB
2400		+	+	+	+	+	+	+	+						LMX-SAB
3224	25	+	+	+	+	+	+	+	+	+	+	+	+		LMX-SAB
3753		+	+	+	+	+	+	+	+						LMX-SAB
3766	81	+	+	+	+	+	+	+	+	+	+	+	+	DQA1*06:01, DQA1*05:03, DQA1*03:02, DQA1*05:05, DQA1*03:01, DQA1*03:01, DQA1*05:01, DQA1*03:03, DQA1*04:01	LMX-SAB
3808	25	+	+	+	+	+	+	+	+	+	+				LMX-SAB
3966	26	+	+	+	+	+	+	+	+	+	+	+	+	DQA1*02	LMX-SAB
4322		+	+	+	+	+	+	+	+	+	+	+	+	DQA1*02	LMX-SAB
5219	25	+	+	+	+	+	+	+	+	+	+			DR7,DQ3	LMX-SAB
6649	24	+	+	+	+	+	+	+	+						LMX-SAB
8082		+	+	+	+	+	+	+	+		+				LMX-SAB
8098		+	+	+	+	+	+	+	+	+	+		+	DR1,DR103,DR7,DR10 >	LMX-SAB
8100		+	+	+	+	+				+		+	+		LMX-SAB
8103		+	+	+	+	+	+	+	+		+			DQ3	LMX-SAB
8112		+	+	+	+		+	+	+	+	+	+			LMX-SAB
8125		+	+	+	+	+				+		+			LMX-SAB
8128		+	+	+	+	+				+		+			LMX-SAB