

REPORT OF THE 404th CELL EXCHANGE

MAY 9, 2018

B-cell Lines	549-550
Cells	1613-1616
Sera	1241-1244

B-cell Line Exchange #275

The results for B-cell Line Exchange #275 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 8.

We would like to acknowledge and thank the labs performing NGS typing

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

Ter-549. The consensus type for this sample from a donor of unknown ethnicity is DRB1*03:01-DRB1*11:01-DRB3*02:02-DQA1*01:02-DQA1*01:05-DQB1*05:01-DQB1*06:02-DPA1*02:01-DPA1*03:01-DPB1*17:01-DPB1*40:01/A*01:01-A*74:01-B*15:03-B*82:01-C*02:10-C*03:02. One likely association present in this cell is DRB1*11:01-DRB3*02:02-DQA1*01:02-DQB1*06:02, observed in previous exchange cells, Ter 458 (same as Ter 199) and Ter 241, both from Black donors. The other likely association present is DRB1*03:01-DRB3*02:02-DQA1*01:05-DQB1*05:01.

This cell was previously studied in the exchange as extract 540 (2012) and extract 400 (2007). In this present retyping, DRB1*03:01 and DRB1*11:01 were each assigned in complete consensus, with 9 labs assigning DRB1*03:01:01 and 10 labs assigning DRB1*11:01:02. The DQ types were reported as DQA1*01:02, DQA1*01:05, DQB1*05:01, and DQB1*06:02. Each were assigned by 100% of labs reporting at high resolution, with 6 labs assigning DQA1*01:02:01 and DQA1*01:05:01, 7 labs assigning DQB1*05:01:01, and 8 lab assigning DQB1*06:02:01. DPA1*02:01 (100%), DPA1*03:01 (89%), DPB1*17:01 (100%) and DPB1*40:01 (100%) were the reported DP types.

Hurley and Hartzman remarked on the presence of a possible new DRB3 allele, noting the sample is DRB3 heterozygous as "one of two alleles is novel (showing a 1nt MM at Ex4 nt 654 where T->W)." In addition, Askar noted a new DPA1 allele may be present, observing the "new DPA1 allele has a T->C substitution resulting in an M->T amino acid change in codon -31.2 (start codon) in exon 1, based on closest reference: DPA1*03:01:01."

The class I types in this sample were each assigned in complete consensus as A*01:01, A*74:01, B*15:03, B*82:01, C*02:10, and C*03:02. A*01:01:01, B*15:03:01, C*02:10:01, and C*03:02:02 were each assigned by

7 labs. The A*01:01-B*82:01-DRB1*11:01 association likely present in this cell is observed exclusively in Blacks, with HF=0.00042.

Ter-550. The consensus type for this sample from a Black donor is DRB1*04:05-DRB1*14:02-DRB3*01:01-DRB4*01:03-DQA1*03:03-DQA1*05:03-DQB1*03:01-DQB1*03:02-DPA1*01:03-DPA1*02:01-DPB1*01:01-DPB1*04:02/A*01:01-A*02:01-B*35:04-B*82:01-C*03:02-C*04:01. One likely association present in this cell is DRB1*14:02-DRB3*01:01-DQA1*05:03-DQB1*03:01, observed in Ter 280. The other association likely present is DRB1*04:05-DRB4*01:03-DQA1*03:03-DQB1*03:02, observed in numerous exchange cells, most recently, Ter 513 (same as Ter 414 and Ter 323) and Ter 522 (same as Ter 467, Ter 384, and Ter 334).

This cell is RB22, a reference cell for B*35:04:01, B*82:01:01:01, and MI-CA*043. It was previously studied in the exchange as Ter 511 (2015), Ter 499 (2014), Ter 266 (2000), and Ter 239 (1999), as well as extracts 432 (2008), 301 (2004), and 87 (1999). In this present typing, DRB1*04:05 and DRB1*14:02 were each assigned in complete consensus, with 10 labs assigning DRB1*04:05:01 and DRB1*14:02:01. The DQ types were reported as DQA1*03:03 (96%), DQA1*05:03 (96%), DQB1*03:01 (100%) and DQB1*03:02 (100%). The DP types were reported in complete consensus as DPA1*01:03, DPA1*02:01, DPB1*01:01, DPB1*04:02. DPA1*01:03:01 and DPA1*02:01:01 were each reported by 5 labs. DPB1*01:01:01 was reported by 9 labs, and DPB1*04:02:01 was reported by 8 labs.

This sample's class I types were reported as A*01:01 (100%), A*02:01 (100%), B*35:04 (96%), B*82:01 (100%), C*03:02 (100%), and C*04:01 (100%). A*01:01:01, A*02:01:01, and B*35:04:01 were each reported by 7 labs, while C*03:02:02 and C*04:01:01 were reported by 6 labs.

Table 3a: Individual laboratory results for B-cell #549-Class II

Center	Low resolution												METHOD	Other Alleles
	DRB1	DRB3/4/5		DQA1		DQB1		DPA1		DPB1				
87	*03	*11	3*02	3*02	*01	*01	*05	*06	*02	*03	*17	*40	RT-PCR	
206	*03	*11	3*02		*01	*01	*05	*06	*02	*03	*17	*40		
278	*03	*11	3*02	3*02	*01	*01	*05	*06	*02	*03	*17	*40		
725	*03	*11	3*PRESENT		*01		*05	*06					SSP SSO SBT	
731	*03	*11			*01		*05	*06					SSP SSO SBT	
735	*03	*11	3*02	3*02	*01	*01	*05	*06	*02	*03	*17	*40	SSP SSO SBT	
747	*03	*11	3*02	3*02	*01	*01	*05	*06	*02	*03	*17	*40	SSP SSO NGS	
771	*03	*11			*01	*01	*05	*06					SSP SSO	
774	*03	*11	3*02		*01	*01	*05	*06	*02	*03	*17	*40	SSP SSO	
779	*03	*11	3*02		*01	*01	*05	*06	*02	*03	*17	*40	SSP SSO	
792	*03	*11	3*02	3*02	*01	*01	*05	*06	*02	*03	*17	*40	SSO SBT	
793	*03	*11	3*02		*01	*01	*05	*06			*17	*40	SSP	
794	*03	*11	3*02	NP	*01		*05	*06	*02	*03	*17	*40	SSP SSO NGS	
2400	*03	*11	3*02		*01	*01	*05	*06			*17	*40	RT-PCR	
2847	*03	*11											SSP SSO SBT	
3224	*03	*11	3*02	NP	*01	*01	*05	*06	*02	*03	*17	*40	SSO	
3519	*03	*11			*01		*05	*06	*02	*03	*17	*40	SSO	
3632	*03	*11	3*02		*01	*01	*05	*06	*02	*03	*17	*40	SSP SSO	
3966													SSP	
4079	*03	*11	3*02		*01		*05	*06			*17	*40	SSP SSO	
4251	*03	*11	3*02	3*02	*01	*01	*05	*06	*02	*03	*17	*40	SSO NGS	
4492	*03	*11	3*PRESENT		*01		*05	*06	*02	*03	*17	*40	SSP SSO NGS	
5130	*03	*11	3*02		*01	*01	*05	*06			*17	*40	SSP SSO NGS	
5214	*03 (DR17)	*11	3*02(DR52)		*01		*05	*06	*02	*03	*17	*40	RT-PCR	
5219	*03	*11			*01	*01	*05	*06					SSO	
5451	*03	*11	3*02	3*02	*01	*01	*05	*06					SSP SSO SBT	
5462	*03	*11	3*02		*01	*01	*05	*06	*02	*03	*17	*40	SSO RT-PCR	
5488			3*02		*01			*06					SSP SSO SBT	
5642	*03	*11	3*PRESENT				*05	*06						
6649	*03	*11	3*PRESENT	3*PRESENT									SSP	
8001	*03	*11	3*02		*01	*01	*05						SSP SSO	
8029	*03	*11			*01	*01	*05	*06					SSO	
8043	*03	*11			*01	*01	*05	*06					SSP SSO	
8068	*03	*11	3*02	3*02	*01	*01	*05	*06					SSO	
8087	*03	*11			*01	*01	*05	*06					SSO	
9916	*03	*11	3*PRESENT				*05	*06					SSP	B*82

Table 3b: Individual laboratory results for B-cell #549-Class II

Center	High resolution												METHOD	Other Alleles
	DRB1	DRB3/4/5		DQA1		DQB1		DPA1		DPA1				
230	*03:01	*11:01					*05:01	*06:02			*17:01	*40:01	SSO SBT	
278	*03:01	*11:01	3*02:02	3*02:02	*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01		
731	*03:01:01G	*11:01:02					*05:01:01G	*06:02:01G					SSP SSO SBT	
735	*03:01	*11:01	3*02:02P	3*02:02P	*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSP SSO SBT	
747	*03:01:01:02	*11:01:02	3*02:02:01	3*02:02:01	*01:02:01:03	*01:05:01	*05:01:01:02	*06:02:01	*02:01:01	*03:01	*17:01	*40:01	SSP SSO NGS	
762	*03:01:01	*11:01:02	3*02:02:01		*01:02:01:03	*01:05:01	*05:01:01:02	*06:02:01	*02:01:01	*03:01	*17:01	*40:01	NGS	
771	*03:01	*11:01					*05:01	*06:02					SSP SSO	
														DRB3*02:33 DRB1*11:155 DRB3*02:28 DQB1*05:48 DQB1*05:55 DQB1*05:61 DQB1*06:159 DRB1*03:83 DRB1*03:100 DRB1*03:104 DRB1*03:107 DRB1*03:112 DRB3*02:29N DQB1*05:68 DQB1*05:74 DQB1*05:76
774	*03:01	*11:01	3*02:02		*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSP SSO	
779	*03:01				*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSP SSO	
792	*03:01	*11:01					*05:01	*06:02			*17:01	*40:01	SSO SBT	DQB1*05:51 DQB1*06:20 B*15:103 B*15:220
793					*01:02	*01:05					*17:01	*40:01	SSP	
794	*03:01:01	*11:01:02	3*02:02:01		*01:02	*01:05	*05:01:01	*06:02:01	*02:01	*03:01	*17:01:01	*40:01	SSP SSO NGS RT-PCR	
2344	*03:01:01:01	*11:01:02	3*02:02:01	3*02:02:01	*01:02:01	*01:05:01	*05:01:01:01	*06:02:01	*02:01:01:01	*02:01:01:01	*17:01	*40:01	NGS	DPA1*02:01:01:02 DPA1*02:01:01:02 DRB1*03:01:01:02 DQB1*05:01:01:02 DQB1*05:01:01:03
2400	*03:01	*11:01			*01:02	*01:05	*05:01	*06:02			*17:01:01G	*40:01	SSP SSO SBT	
3135	*03:01	*11:01	3*02:02		*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01		DQA1*01:04 DQA1*01:01
3511	*03:01	*11:01	3*02:02	3*02:02	*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSP SSO	
3519	*03:01	*11:01	3*02:02	3*02:02	*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSP NGS	
3632	*03:01	*11:01	3*02:02		*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSP SSO	
3753	*03:01:01	*11:01:02	3*02:02:01	3*02:02:01	*01:02:01	*01:05:01	*05:01	*06:02:01	*02:01:01	*03:01	*17:01:01	*40:01	NGS	
3966	*03:01	*11:01	3*02:02	3*02:02			*05:01	*06:02					SSP	
4079	*03:01	*11:01	3*02:02		*01:02	*01:05	*05:01	*06:02			*17:01	*40:01	SSP SSO	
4251	*03:01	*11:01	3*02:02	3*02:02	*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSO NGS	

Table 3b: Individual laboratory results for B-cell #549-Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPA1		METHOD	Other Alleles
4337	*03:01	*11:01					*05:01	*06:02			*17:01	*40:01	SBT	
4492	*03:01:01	*11:01:02	3*02:02		*01:02:01	*01:05:01	*05:01:01	*06:02:01	*02:01	*03:01	*17:01	*40:01	SSP SSO NGS	
5130	*03:01	*11:01	3*02:02		*01:02	*01:05	*05:01	*06:02			*17:01	*40:01	SSP SSO NGS	
5133	*03:01:01	*11:01:02	3*02:02:01		*01:02:01	*01:05:01	*05:01:01	*06:02:01	*02:01:01:03	NEW	*17:01:01:01	*40:01	NGS	
5451	*03:01:01	*11:01:02											SSP SSO SBT	
5462	NT	NT	NT		NT	NT	NT	NT	NT	NT	*17:01	*40:01	SSO RT-PCR	DPB1*447:01
5488	*03:01:01	*11:01:02					*05:01:01				*17:01	*40:01	SSP SSO SBT	DRB1*03:01:11 DRB1*11:01:01 DQB1*05:01:14 DQB1*05:11:02 DQB1*05:73 DQB1*05:18
5642	*03:01	*11:01					*05:01	*06:02						
8001	*03:01	*11:01	3*02:02				*05:01	*06:02			*17:01	*40:01	SSP SSO	
8021	*03:01	*11:01	3*02:02		*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSO NGS	
8042	*03:01	*11:01	3*02:02				*05:01	*06:02						
8043	*03:01	*11:01			*01:02	*01:05	*05:01	*06:02					SSP SSO	
8070	*03:01	*11:01					*05:01	*06:02					SBT	
8086	*03:01	*11:01			*01:02	*01:05	*05:01	*06:02	*02:01	*03:01	*17:01	*40:01	SSO SBT	

Table 4: Individual laboratory results for B-cell #549-Class II

Serology									
CTR	DRB1		DRB3/4/5		DQB1		Others		
910	DR17	DR11	DR52				DQ1		

Table 5: Individual laboratory results for B-cell #549-Class I

Low resolution							High resolution						METHOD	Other Alleles
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
87	*01	*74	*15	*82	*02	*03							RT-PCR	
206	*01	*74	*15	*82	*02	*03								
230							*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSO SBT	
278	*01	*74	*15	*82	*02	*03	*01:01	*74:01	*15:03	*82:01	*02:02	*03:02		
725	*01	*74	*15	*82	*02	*03							SSP SSO SBT	
731	*01	*74	*15	*82	*02	*03							SSP SSO SBT	
735	*01	*74	*15	*82	*02	*03	*01:01	*74:01P	*15:03P	*82:01	*02:10	*03:02	SSP SSO SBT	
747	*01	*74	*15	*82	*02	*03	*01:01:01	*74:01:01	*15:03:01:02	*82:01	*02:10:01:01	*03:02:02:01	SSP SSO NGS	
774	*01	*74	*15	*82	*02	*03			*15:03	*82:01			SSP SSO	B*15:173 B*15:103 B*15:210 B*15:220 B*15:266 B*15:274 B*15:282
779	*01	*74	*15	*82	*02	*03			*15:03	*82:01		*03:02	SSP SSO	
792	*01	*74	*15	*82	*02	*03	*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSO SBT	B*15:103 B*15:220
793	*01	*74	*15	*82	*02	*03							SSP	
794	*01	*74	*15	*82	*02	*03	*01:01:01	*74:01:01	*15:03:01	*82:01	*02:10:01	*03:02:02	SSP SSO NGS RT-PCR	
2344							*01:01:01	*74:01	*15:03:01	*82:01	*02:10:01:01	*03:02:02:01	NGS	
2400	*01	*74	*15	*82	*02	*03	*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSP SSO SBT	A*01:01:01:02N
2847	*01	*74	*15	*82	*02	*03							SSO	
3135							*01:01	*74:01	*15:03	*82:01	*02:10	*03:02		
3224	*01	*74	*15	*82	*02	*03							SSO	
3511							*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSP SSO	
3519	*01	*74	*15	*82	*02	*03	*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSP NGS	
3753							*01:01:01	*74:01:01	*15:03:01	*82:01	*02:10:01	*03:02:02	NGS	
3966	*01	*74	*15	*82	*02	*03			*15:03				SSP	
4251	*01	*74	*15	*82	*02	*03	*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSO NGS	
4337							*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SBT	
4492	*01	*74	*15	*82	*02	*03	*01:01:01	*74:01	*15:03:01	*82:01	*02:10:01:01	*03:02:02:01	SSP SSO NGS	
5130	*01	*74	*15	*82	*02	*03	*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSP SSO NGS	
5133							*01:01:01	*74:01:01	*15:03:01:02	*82:01	*02:10:01:01	*03:02:02:01	NGS	
5214	*01	*74	(B72) *15	*82	*02	(Cw10) *03							RT-PCR	
5219	*01	*74	*15	*82	*02	*03							SSO	
5462	*01	*74	*15	*82	*02	*03	NT	NT	NT	NT	NT	NT	SSO RT-PCR	
5488		*74					*01:01:01		*15:03:01	*82:01	*02:10:01	*03:02:02	SSP SSO SBT	A*01:03
8021							*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSO NGS	
8042							*01:01	*74:01	*15:03	*82:01	*02:10	*03:02		
8029	*01	*74	*15	*82	*02	*03							SSO	
8068	*01	*74	*15	*82	*02	*03							SSO	
8086							*01:01	*74:01	*15:03	*82:01	*02:10	*03:02	SSO SBT	
8087	*01	*74	*15	*82	*02	*03							SSO	
9916	*01	*74	*15	*82	*02	*03							SSP	B*56

Table 6a: Individual laboratory results for B-cell #550-Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
87	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04(DP402)	RT-PCR	
206	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04		
278	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04		
725	*04	*14	3*PRESENT	4*PRESENT	*03	*05	*03						SSP SSO SBT	
731	*04	*14			*03	*05	*03	*03					SSP SSO SBT	
735	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04(DP402)	SSP SSO SBT	
747	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04	SSP SSO NGS	
771	*04	*14			*03	*05	*03	*03					SSP SSO	
774	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04(DP402)	SSP SSO	
779	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04(DP402)	SSP SSO	
792	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04	SSO SBT	
793	*04	*14	3*01	4*PRESENT	*03	*05	*03	*03			*01	*04(DP402)	SSP	
794	*04	*14	3*01	4*01	*03	*05	*03		*01	*02	*01	*04	SSP SSO NGS	
2400	*04	*14	3*01	4*01	*03	*05	*03	*03			*01	*04	RT-PCR	
2847	*04	*14											SSP SSO SBT	
3224	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04(DP402)	SSO	
3519	*04	*14			*03	*05	*03		*01	*02	*01	*04(DP402)	SSP NGS	
3632	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04	SSP SSO	
3966													SSP	
4079	*04	*14	3*01	4*01	*03	*05	*03				*01	*04	SSP SSO	
4251	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04(DP402)	SSO NGS	
4492	*04	*14	3*PRESENT	4*PRESENT	*03	*05	*03		*01	*02	*01	*04(DP402)	SSP SSO NGS	
5130	*04	*14	3*01	4*01	*03	*05	*03	*03			*01	*04	SSP SSO NGS	
5214	*04	*14	3*01(DR52)	4*01(DR53)	*03	*05	*03	*03	*01	*02	*01	*04(DP402)	RT-PCR	
5219	*04	*14			*03	*05	*03	*03					SSO	
5451	*04	*14	3*01	4*01	*03	*05	*03	*03					SSP SSO SBT	
5462	*04	*14	3*01	4*01	*03	*05	*03	*03	*01	*02	*01	*04(DP402)	SSO RT-PCR	
5488			3*01	4*01	*03		*03	*03					SSP SSO SBT	
5642	*04	*14	3*PRESENT	4*PRESENT			*03	*03						
6649	*04	*14	3*PRESENT	4*PRESENT									SSP	
8001	*04	*14	3*01	4*01	*03	*05	*03	*03					SSP SSO	
8029	*04	*14			*03	*05	*03	*03					SSO	
8043	*04	*14			*03	*05	*03	*03					SSP SSO	
8068	*04	*14	3*01	4*01	*03	*05	*03	*03					SSO	
8087	*04	*14			*03	*05	*03	*03					SSO	
9916	*04	*14	3*PRESENT	4*PRESENT			*03	*03					SSP	

Table 6b: Individual laboratory results for B-cell #550-Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPA1		METHOD	Other Alleles
230	*04:05	*14:02					*03:01	*03:02			*01:01	*04:02	SSO SBT	
278	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02	*01:03	*02:01	*01:01	*04:02		
731	*04:05:01	*14:02:01					*03:01:01G	*03:02:01G					SSP SSO SBT	
735	*04:05	*14:02	3*01:01P	4*01:01P	*03:01P	*05:01P	*03:01	*03:02	*01:03P	*02:01	*01:01	*04:02	SSP SSO SBT	DPA1*01:13
747	*04:05:01	*14:02:01	3*01:01:02:01	4*01:03:01	*03:03:01:01	*05:03	*03:01:01:01	*03:02:01:01	*01:03:01:05	*02:01:01	*01:01:01	*04:02:01:02	SSP SSO NGS	
762	*04:05:01	*14:02:01	3*01:01:02:01	4*01:03:01	*03:03:01:01	*05:03	*03:01:01:01	*03:02:01	*01:03:01	*02:01:01	*01:01:01	*04:02:01	NGS	
771	*04:05	*14:02					*03:01	*03:02					SSP SSO	
														DPA1*01:13 DRB4*01:09 DRB4*01:10 DRB1*04:178N DRB3*01:16 DRB3*01:17 DRB3*01:19 DQB1*03:92 DQB1*03:93
774	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02	*01:03	*02:01	*01:01	*04:02	SSP SSO	
779					*03:03	*05:03	*03:01	*03:02	*01:03	*02:01	*01:01	*04:02	SSP SSO	
792	*04:05	*14:02					*03:01	*03:02			*01:01	*04:02	SSO SBT	
793					*03:03	*05:03					*01:01	*04:02	SSP	
794	*04:05:01	*14:02:01	3*01:01:02	4*01:03:01	*03:03	*05:03	*03:01:01	*03:02:01	*01:03	*02:01	*01:01:01	*04:02:01	SSP SSO NGS RT-PCR	
														DPA1*02:01:01:02 DPB1*04:02:01:02 DPA1*01:03:01:02 DPA1*01:03:01:03 DPA1*01:03:01:04 DPA1*01:03:01:05
2344	*04:05:01	*14:02:01	3*01:01:02:02	4*01:03:01	*03:03:01	*05:03	*03:01:01:01	*03:02:01:01	*01:03:01:01	*02:01:01:01	*01:01:01	*04:02:01:01	NGS	
2400	*04:05	*14:02			*03:03	*05:03	*03:01	*03:02			*01:01:01G	*04:02P	SSP SSO SBT	
3135	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02	*01:03	*02:01	*01:01	*04:02		DQA1*03:02
3511	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02	*01:03	*02:01	*01:01	*04:02	SSP SSO	
3519	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02	*01:03	*02:01	*01:01	*04:02	SSP NGS	
3632	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02	*01:03	*02:01	*01:01	*04:02	SSP SSO	
3753	*04:05:01	*14:02:01	3*01:01:02	4*01:03:01	*03:03:01	*05:03:01	*03:01:01	*03:02:01	*01:03:01	*02:01:01	*01:01:01	*04:02:01	NGS	
3966	*04:05	*14:02	3*01:01	4*01:03			*03:01	*03:02					SSP	
4079	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02			*01:01	*04:02	SSP SSO	
4251	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02	*01:03	*02:01	*01:01	*04:02	SSO NGS	
4337	*04:05	*14:02					*03:01	*03:02			*01:01	*04:02	SBT	
4492	*04:05:01	*14:02:01	3*01:01:02G	4*01:03	*03:03:01	*05:03	*03:01:01	*03:02:01	*01:03	*02:01	*01:01:01	*04:02:01	SSP SSO NGS	DPA1*01:13
5130	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03	*03:01	*03:02			*01:01	*04:02	SSP SSO NGS	
5133	*04:05:01	*14:02:01	3*01:01:02:02	4*01:03:01	*03:03:01:01	*05:03:01:01	*03:01:01	*03:02:01:01	*01:03:01	*02:01:01	*01:01:01:04	*04:02:01	NGS	
5451	*04:05:01	*14:02:01											SSP SSO SBT	
														DPB1*417:01 DPB1*440:01 DPB1*616:01 DPB1*462:01 DPB1*463:01 DPB1*647:01
5462	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	*01:01	*04:02P	SSO RT-PCR	

Table 6b: Individual laboratory results for B-cell #550-Class II

High resolution															
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPA1		METHOD	Other Alleles	
5488	*04:05:01	*14:02:01				*05:03						*01:01:01	*04:02:01	SSP SSO SBT	DRB1*04:08:01 DRB1*14:13
5642	*04:05	*14:02						*03:01	*03:02						
8001	*04:05	*14:02	3*01:01	4*01:03				*03:01	*03:02			*01:01	*04:02	SSP SSO	
8021	*04:05	*14:02	3*01:01	4*01:03	*03:03	*05:03		*03:01	*03:02	*01:03	*02:01	*01:01	*04:02	SSO NGS	
8042	*04:05	*14:02	3*01:01	4*01:03				*03:01	*03:02						
8043	*04:05	*14:02			*03:03	*05:03		*03:01	*03:02					SSP SSO	
8070	*04:05	*14:02						*03:01	*03:02					SBT	
8086	*04:05	*14:02			*03:03	*05:03		*03:01	*03:02	*01:03	*02:01	*01:01	*04:02	SSO SBT	

Table 7: Individual laboratory results for B-cell #550-Class II

Serology									
CTR	DRB1		DRB3/4/5		DQB1		Others		
910	DR4	DR14	DR52	DR53			DQ7	DQ8	

Table 8: Individual laboratory results for B-cell #550-Class I

Low resolution							High resolution						METHOD	Other Alleles
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
87	*01	*02	*35	*82	*03	*04							RT-PCR	
206	*01	*02	*35	*82	*03	*04								
230							*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSO SBT	
278	*01	*02	*35	*82	*03	*04	*01:01	*02:01	*35:04	*82:01	*03:02	*04:01		
725	*01	*02	*35	*82	*03	*04							SSP SSO SBT	
731	*01	*02	*35	*82	*03	*04							SSP SSO SBT	
735	*01	*02	*35	*82	*03	*04	*01:01P	*02:01P	*35:04	*82:01	*03:02	*04:01P	SSP SSO SBT	
747	*01	*02	*35	*82	*03	*04	*01:01:01	*02:01:01:01	*35:04:01	*82:01	*03:02:02:01	*04:01:01:01	SSP SSO NGS	
774	*01	*02	*35	*82	*03	*04			*35:02				SSP SSO	
779	*01	*02	*35	*82	*03	*04					*03:02		SSP SSO	
792	*01	*02	*35	*82	*03	*04	*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSO SBT	A*02:642 A*02:665 A*02:686 A*02:689 C*04:30 C*04:226 C*04:275 A*01:234 A*02:629 A*02:01:01:02L
793	*01	*02	*35	*82	*03	*04							SSP	
794	*01	*02	*35	*82	*03	*04	*01:01:01	*02:01:01	*35:04:01	*82:01	*03:02:02	*04:01:01	SSP SSO NGS RT-PCR	
2344							*01:01:01	*02:01:01:01	*35:04:01	*82:01	*03:02:02:01	*04:01:01:01	NGS	
2400	*01	*02	*35	*82	*03	*04	*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSP SSO SBT	A*01:01:01:02N
2847	*01	*02	*35	*82	*03	*04							SSO	
3135							*01:01	*02:01	*35:04	*82:01	*03:02	*04:01		A*02:01L C*04:09N
3224	*01	*02	*35	*82	*03	*04							SSO	
3511							*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSP SSO	
3519	*01	*02	*35	*82	*03	*04	*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSP NGS	
3753							*01:01:01	*02:01:01	*35:04:01	*82:01	*03:02:02	*04:01:01	NGS	
3966	*01	*02	*35	*82	*03	*04							SSP	
4251	*01	*02	*35	*82	*03	*04	*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSO NGS	
4337							*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SBT	
4492	*01	*02	*35	*82	*03	*04	*01:01:01	*02:01:01	*35:04:01	*82:01	*03:02:02:01	*04:01:01	SSP SSO NGS	
5130	*01	*02	*35	*82	*03	*04	*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSP SSO NGS	
5133							*01:01:01	*02:01:01	*35:04:01	*82:01	*03:02:02:01	*04:01:01	NGS	
5214	*01	*02	*35	*82	*03 (Cw10)	*04							RT-PCR	
5219	*01	*02	*35	*82	*03	*04							SSO	
5462	*01	*02	*35	*82	*03	*04	NT	NT	NT	NT	NT	NT	SSO RT-PCR	
5488					*03	*04	*01:01:01	*02:01:01	*35:04:01	*82:01			SSP SSO SBT	A*01:01:21 A*01:01:68 A*01:98 A*01:100 A*02:01:09 A*02:01:52 A*02:262 A*02:346
8021							*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSO NGS	
8029	*01	*02	*35	*82	*03	*04							SSO	

Table 8: Individual laboratory results for B-cell #550-Class I

Low resolution							High resolution							
Center	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C		METHOD	Other Alleles
8068	*01	*02	*35	*82	*03	*04							SSO	
8042							*01:01	*02:01	*35:04	*82:01	*03:02	*04:01		
8086							*01:01	*02:01	*35:04	*82:01	*03:02	*04:01	SSO SBT	
8087	*01	*02	*35	*82	*03	*04							SSO	
9916	*01	*02	*35	*82	*03	*04							SSP	

CELL EXCHANGE #404

The results for Cell Exchange #404 are summarized in Table 9 and Table 10. Molecular typing results for individual laboratories are listed in Tables 11-14 for each sample and individual serology results for each sample are listed

in Table 15. The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

Cell 1613. The reported consensus type for this sample from a Hispanic donor is A*02:06(A2)-A*68:02(A68)-B*35:17(B35)-B*53:01(B53)-C*04:01(Cw4). This sample was previously typed in the exchange as cells 1477 (2012), 1199 (2004), and 1175 (2003). It is the sibling of cell 1614 also examined in this study. Data from family studies reveal the haplotypes in this sample to be A*68:02-B*53:01-C*04:01 and A*02:06-B*35:17-C*04:01. In this present retyping, A*02:06, A*68:02, B*35:17, B*53:01, and C*04:01 were each assigned in completed consensus, with 4 labs assigning A*02:06:01:01, A*68:02:01:01, and C*04:01:01. B*35:17:01 and B*53:01:01 were assigned by 5 labs. A2 (100%), A68 (79%), B35 (100%), B53 (93%), and Cw4 (43%), were reported as the serological types.

Cell 1614. The reported consensus type for this sample from a Hispanic donor is A*68:01(A68)-A*68:02-B*48:01(B48)-B*53:01(B53)-C*04:01(Cw4)-C*08:01(Cw8). As the sibling of cell 1613, the haplotypes in this cell are determined to be A*68:02-B*53:01-C*04:01 and A*68:01-B*48:01-C*08:01. Two subtypes of A68 were detected in this cell, A*68:01 (100%) and A*68:02 (100%). A*68:01:02:01 and A*68:02:01:01 were each assigned by 4 labs. B*48:01, B*53:01, C*04:01, and C*08:01 were also reported in complete consensus, with 5 labs reporting B*48:01:01 and B*53:01:01. C*04:01:01 and C*08:01:01 were each reported by 4 labs. A68 (69%), B48 (100%), B53 (100%), Cw4 (39%), and Cw8 (39%) were the reported serological types.

Cell 1615. The reported consensus type for this sample from a Hispanic donor is A*26:01(A26)-A*31:01(A31)-B*15:09(B70)-B*35:17(B35)-C*04:01(Cw4)-C*07:04(Cw7). Likely associations present in this cell are B*35:17-C*04:01 and B*15:09-C*07:04, with respective HF=0.01631 and 0.00025. The B*15:09-C*07:04 association in this cell was observed in another B*15:09 exchange cell, extract 186 (same as extract 82). A*26:01, A*31:01, B*15:09, B*35:17, C*04:01, and C*07:04 were each assigned in complete consensus, with 3 labs assigning A*26:01:01:01, A*31:01:02:01, and B*15:09:01. B*35:17:01, C*04:01:01, and C*07:04:01 were each reported by 4 labs. A26 (92%), A31 (100%), B70 (62%), B35 (100%), Cw4 (39%), and Cw7 (39%) were the reported serological types.

Cell 1616. The reported consensus type for this sample from a Chinese donor is A*02:06(A2)-A*02:07-B*15:27(B62)-B*46:01(B46)-C*01:02(Cw1)-C*04:01(Cw4). Likely associations present in this cell are A*02:06-B*15:27-C*04:01 and A*02:07-B*46:01-C*01:02, with respective HF=0.00057 and 0.03251. Two subtypes of A*02 were detected in this cell, A*02:06 (92%) and A*02:07 (100%). A*02:06:01:01 and A*02:07:01 were each assigned by 3 labs. B*15:27, B*46:01, C*01:02, and C*04:01 were also assigned in complete consensus, with 4 labs assigning B*15:27:01, B*46:01:01, and C*04:01:01. C*01:02:01 was assigned by 5 labs. A2 (100%), B62 (85%), B46 (77%), Cw1 (31%), and Cw4 (39%) were the reported serological types.

Table 9. Summary of the 404th Cell Exchange (Cell #1613-1616)
DNA typing

Cell 1613	
20 low/14 high labs - A	%(n)
A*02:06:01:01	29(4)
A*02:06:01G	7 (1)
A*02:06	64(9)
A*02	100(20)
20 low/14 high labs - A	%(n)
A*68:02:01:01	29(4)
A*68:02:01G	14(2)
A*68:02	57(8)
A*68	100(20)
20 low/15 high labs - B	%(n)
B*35:17:01	36(5)
B*35:17	67(10)
B*35	100(20)
B*35	100(20)
20 low/15 high labs - B	%(n)
B*53:01:01	33(5)
B*53:01	67(10)
B*53	100(20)
18 low/14 high Labs - C	%(n)
C*04:01:01:01	14(2)
C*04:01:01	14(2)
C*04:01:01G	7 (1)
C*04:01P	7 (1)
C*04:01	57(8)
C*04	100(18)

Cell 1614	
20 low/14 high labs - A	%(n)
A*68:01:02:01	29(4)
A*68:01:02G	7 (1)
A*68:01P	7 (1)
A*68:01	57(8)
A*68	100(20)
14 high labs - A	%(n)
A*68:02:01:01	29(4)
A*68:02:01G	14(2)
A*68:02	57(8)
20 low/15 high labs - B	%(n)
B*48:01:01:01	7 (1)
B*48:01:01	29(4)
B*48:01	48(10)
B*48	100(20)
20 low/15 high labs - B	%(n)
B*53:01:01	33(5)
B*53:01	67(10)
B*53	100(20)
18 low/14 high Labs - C	%(n)
C*04:01:01:01	14(2)
C*04:01:01	14(2)
C*04:01:01G	7 (1)
C*04:01P	7 (1)
C*04:01	57(8)
C*04	100(18)
18 low/14 high Labs - C	%(n)
C*08:01:01:01	14(2)
C*08:01:01	14(2)
C*08:01:01G	14(2)
C*08:01	57(8)
C*08	100(18)

Cell 1615	
19 low/13 high labs - A	%(n)
A*26:01:01:01	23(3)
A*26:01:01G	15(2)
A*26:01	62(8)
A*26	100(19)
19 low/13 high labs - A	%(n)
A*31:01:02:01	23(3)
A*31:01:02	8 (1)
A*31:01:02G	8 (1)
A*31:01	61(8)
A*31	100(19)
19 low/16 high labs -B	%(n)
B*15:09:01	19(3)
B*15:09	81(13)
B*15(B70)	26(3)
B*15	84(16)
17 low/14 high labs -B	%(n)
B*35:17:01	29(4)
B*35:17	71(10)
B*35	100(19)
19 low/13 high Labs - C	%(n)
C*04:01:01:01	8 (1)
C*04:01:01	15(2)
C*04:01:01G	8 (1)
C*04:01P	8 (1)
C*04:01	61(8)
C*04	100(17)
17 low/13 high Labs - C	%(n)
C*07:04:01:01	8 (1)
C*07:04:01	15(2)
C*07:04:01G	8 (1)
C*07:04	69(9)
C*07	100(17)

Cell 1616	
19 low/12 high labs - A	%(n)
A*02:06:01:01	25(3)
A*02:06:01G	8 (1)
A*02:06	58(7)
A*02:01	8 (1)
A*02	100(19)
12 high labs - A	%(n)
A*02:07:01	25(3)
A*02:07:01G	8 (1)
A*02:07	67(8)
19 low/16 high labs - B	%(n)
B*15:27:01	25(4)
B*15:27	75(12)
B*15(B62)	26(3)
B*15	84(16)
19 low/13 high labs - B	%(n)
B*46:01:01	31(4)
B*46:01	69(9)
B*46	100(19)
17 low/13 high labs - C	%(n)
C*01:02:01	23(3)
C*01:02:01G	15(2)
C*01:02	61(8)
C*01	100(17)
17 low/13 high labs - C	%(n)
C*04:01:01:01	8 (1)
C*04:01:01	15(2)
C*04:01:01G	8 (1)
C*04:01P	8 (1)
C*04:01	61(8)
C*04	100(17)

Table 10. Summary of the 404th Cell Exchange (Cell #1613 - 1616)

Serological typing

(Hispanic) Cell 1613 (14 Samples Typed)	
A2	100.0%
	[100.0%]
A68	78.6%
A28	21.4%
	[100.0%]
B35	100.0%
B53	92.9%
Cw4	42.9%
	[42.9%]
Bw4	71.4%
Bw6	71.4%
Others Found	
B5	14.3%
Cw5	7.1%

(Hispanic) Cell 1614 (13 Samples Typed)	
A68	69.2%
A28	30.8%
	[100.0%]
B48	100.0%
B53	100.0%
Cw4	38.5%
	[38.5%]
Cw8	38.5%
Bw4	69.2%
Bw6	69.2%
Others Found	
A2	7.7%

(Hispanic) Cell 1615 (13 Samples Typed)	
A26	92.30%
A10	7.70%
	[100.0%]
A31	100.00%
	[100.0%]
B70	46.20%
B71	15.40%
	[61.5%]
B35	100.00%
Cw4	38.50%
	[38.5%]
Cw7	38.50%
Bw6	69.20%
Others Found	
B15	23.10%

(Chinese) Cell 1616 (13 Samples Typed)	
A2	100.0%
	[100.0%]
B62	84.6%
B15	15.4%
	[100.0%]
B46	76.9%
Cw1	30.8%
Cw4	38.5%
	[38.5%]
Bw6	69.2%
Others Found	
Cw3	15.4%
B70	7.7%
B75	7.7%
A68	7.7%

Table 11. Individual laboratory results for Cell #1613

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*02	*68	*35	*53	*04	*04	*02:06	*68:02	*35:17	*53:01	*04:01	*04:01		
725	*02	*68	*35	*53	*04								SSO	
731	*02	*68	*35	*53	*04		*02:06:01G	*68:02:01G	*35:17:01	*53:01:01	*04:01:01G		SSP SSO SBT	A*02:06:07 A*68:02:07
745							*02:06:01:01	*68:02:01:01	*35:17:01	*53:01:01	*04:01:01		SSP SBT NGS	
747	*02	*68	*35	*53	*04	*04	*02:06:01:01	*68:02:01:01	*35:17:01	*53:01:01	*04:01:01:01	*04:01:01:01	SSP SSO NGS	
762							*02:06:01:01	*68:02:01:01	*35:17:01	*53:01:01	*04:01:01:01		NGS	
771	*02	*68	*35	*53	*04								SSO	
774	*02	*68	*35	*53	*04				*35:17	*53:01			SSP SSO	B*53:32 B*53:37
779	*02	*68	*35	*53	*04								SSP SSO	
3186	*02	*68	*35	*53	*04	*04							SSO	
3545	*02	*68	*35	*53	*04		*02:06	*68:02	*35:17	*53:01	*04:01		SSP SSO SBT	A*68:163 C*04:275 C*04:30 C*04:82 C*04:226
3625	*02	*68	*35	*53	*04	*04	*02:06	*68:02	*35:17	*53:01	*04:01	*04:01	SSO SBT	A*68:163 C*04:226
3632	*02	*68	*35	*53	*04		*02:06	*68:02	*35:17	*53:01	*04:01		SSP SSO	
3766	*02	*68	*35	*53									SSO	
3808	*02	*68	*35	*53	*04									
4079	*02	*68	*35	*53	*04		*02:06	*68:02	*35:17	*53:01	*04:01		SSP SSO	C*04:221
4251	*02	*68	*35	*53	*04	*04	*02:06	*68:02:01G	*35:17	*53:01	*04:01P	*04:01P	SSO SBT	
5133							*02:06:01:01	*68:02:01:01	*35:17:01	*53:01:01	*04:01:01		NGS	
5214	*02	*68	*35	*53	*04								RT-PCR	
5462	*02	*68	*35	*53	*04		*02:06	*68:02	*35:17	*53:01	*04:01		SSP SSO NGS	
6649	*02	*68	*35	*53									SSP	
8001	*02	*68	*35	*53	*04								SSO	
8043	*02	*68	*35	*53	*04		*02:06	*68:02	*35:17	*53:01	*04:01		SSP SSO	
8070							*02:06	*68:02	*35:17	*53:01	*04:01		SBT	

Table 12. Individual laboratory results for Cell #1614

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*68	*68	*48	*53	*04	*08	*68:01	*68:02	*48:01	*53:01	*04:01	*08:01		
725	*68		*48	*53	*04	*08							SSO	
731	*68	*68	*48	*53	*04	*08	*68:01:02G	*68:02:01G	*48:01:01	*53:01:01	*04:01:01G	*08:01:01G	SSP SSO SBT	C*04:04:01
745							*68:01:02:01	*68:02:01:01	*48:01:01	*53:01:01	*04:01:01	*08:01:01:01	SSP SBT NGS	
747	*68	*68	*48	*53	*04	*08	*68:01:02:01	*68:02:01:01	*48:01:01	*53:01:01	*04:01:01:01	*08:01:01	SSP SSO NGS	
762							*68:01:02:01	*68:02:01:01	*48:01:01	*53:01:01	*04:01:01:01	*08:01:01	NGS	
771	*68		*48	*53	*04	*08							SSO	
774	*68		*48	*53	*04	*08			*48:01	*53:01			SSP SSO	B*48:35 B*53:32
779	*68	*68	*48	*53	*04	*08							SSP SSO	
3186	*68	*68	*48	*53	*04	*08							SSO	
3545	*68	*68	*48	*53	*04	*08	*68:01	*68:02	*48:01	*53:01	*04:01	*08:01	SSP SSO SBT	C*08:22 C*04:30
3625	*68	*68	*48	*53	*04	*08	*68:01	*68:02	*48:01	*53:01	*04:01	*08:01	SSO SBT	A*68:163 C*04:226 A*68:11N A*68:152
3632	*68	*68	*48	*53	*04	*08	*68:01	*68:02	*48:01	*53:01	*04:01	*08:01	SSP SSO	
3766	*68	*68	*48	*53									SSO	
3808	*68		*48	*53	*04	*08								
4079	*68		*48	*53	*04	*08	*68:01	*68:02	*48:01	*53:01	*04:01	*08:01	SSP SSO	C*04:221
4251	*68	*68	*48	*53	*04	*08	*68:01P	*68:02:01G	*48:01	*53:01	*04:01P	*08:01:01G	SSO SBT	
5133							*68:01:02:01	*68:02:01:01	*48:01:01:01	*53:01:01	*04:01:01	*08:01:01:01	NGS	
5214	*68		*48	*53	*04	*08							RT-PCR	
5462	*68	*68	*48	*53	*04	*08	*68:01	*68:02	*48:01	*53:01	*04:01	*08:01	SSP SSO NGS	
6649	*68		*48	*53									SSP	
8001	*68		*48	*53	*04	*08							SSO	
8043	*68	*68	*48	*53	*04	*08	*68:01	*68:02	*48:01	*53:01	*04:01	*08:01	SSP SSO	
8070							*68:01	*68:02	*48:01	*53:01	*04:01	*08:01	SBT	

Table 13. Individual laboratory results for Cell #1615

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*26	*31	*15	*35	*04	*07	*26:01	*31:01	*15:09	*35:17	*04:01	*07:04		
725	*26	*31	*15	*35	*04	*07							SSO	
731	*26	*31	*15	*35	*04	*07	*26:01:01G	*31:01:02	*15:09:01	*35:17:01	*04:01:01G	*07:04:01G	SSP SSO SBT	
745							*26:01:01:01	*31:01:02:01	*15:09:01	*35:17:01	*04:01:01	*07:04:01	SSP SBT NGS	
747	NT												SSP SSO NGS	
762							*26:01:01:01	*31:01:02:01	*15:09	*35:17:01	*04:01:01:01	*07:04:01	NGS	
771	*26	*31	*15	*35	*04	*07							SSO	
774	*26	*31	*15	*35	*04	*07			*15:09	*35:17			SSP SSO	
779	*26	*31	*15	*35	*04	*07			*15:09				SSP SSO	
3186	*26	*31	*15	*35	*04	*07							SSO	
3545	*26	*31	*15	*35	*04	*07	*26:01	*31:01	*15:09	*35:17	*04:01	*07:04	SSP SSO SBT	A*31:119 A*26:117 C*07:11 C*04:30 C*04:82 C*04:226 C*04:275
3625	*26	*31	*15	*35	*04	*07	*26:01	*31:01	*15:09	*35:17	*04:01	*07:04	SSO SBT	A*26:117 A*31:119 C*04:226
3632	*26	*31	*15	*35	*04	*07	*26:01	*31:01	*15:09	*35:17	*04:01	*07:04	SSP SSO	
3766	*26	*31	*15 (B70)	*35									SSO	
3808	*26	*31	*15	*35	*04	*07			*15:09					
4079	*26	*31	*15	*35	*04	*07	*26:01	*31:01	*15:09	*35:17	*04:01	*07:04	SSP SSO	C*04:221
4251	*26	*31	*15	*35	*04	*07	*26:01:01G	*31:01:02G	*15:09	*35:17	*04:01P	*07:04	SSO SBT	
5133							*26:01:01:01	*31:01:02:01	*15:09:01	*35:17:01	*04:01:01	*07:04:01:01	NGS	
5214	*26	*31	*15 (B70)	*35	*04	*07							RT-PCR	
5462	*26	*31	*15	*35	*04	*07	*26:01	*31:01	*15:09	*35:17	*04:01	*07:04	SSP SSO NGS	
6649	*26	*31	*15	*35									SSP	
8001	*26	*31	*15 (B70)	*35	*04	*07							SSO	
8043	*26	*31	*15	*35	*04	*07	*26:01	*31:01	*15:09	*35:17	*04:01	*07:04	SSP SSO	
8070							*26:01	*31:01	*15:09	*35:17	*04:01	*07:04	SBT	

Table 14. Individual laboratory results for Cell #1616

Center	Low Resolution						High Resolution						Method	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
278	*02	*02	*15	*46	*01	*04	*02:01	*02:07	*15:27	*46:01	*01:02	*04:01		
725	*02		*15	*46	*01	*04							SSO	
731	*02	*02	*15	*46	*01	*04	*02:06:01G	*02:07:01G	*15:27:01	*46:01:01	*01:02:01G	*04:01:01G	SSP SSO SBT	A*02:01 A*02:474
745							*02:06:01:01	*02:07:01	*15:27:01	*46:01:01	*01:02:01	*04:01:01	SSP SBT NGS	
747													SSP SSO NGS	
762							*02:06:01:01	*02:07:01	*15:27:01	*46:01:01	*01:02:01	*04:01:01:01	NGS	A*02:01:01:01 A*02:474
771	*02		*15	*46	*01	*04							SSO	
774	*02		*15	*46	*01	*04			*15:27				SSP SSO	
779	*02	*02	*15	*46	*01	*04			*15:27				SSP SSO	
3186	*02	*02	*15	*46	*01	*04							SSO	
3545	*02	*02	*15	*46	*01	*04	*02:06	*02:07	*15:27	*46:01	*01:02	*04:01	SSP SSO SBT	A*02:01 A*02:474 C*04:30 C*04:82 C*04:226 C*01:85 C*01:127 C*01:142 C*04:275
3625	*02	*02	*15	*46	*01	*04	NT		*15:27	*46:01	*01:02	*04:01	SSO SBT	C*01:127 C*04:226
3632	*02	*02	*15	*46	*01	*04	*02:06	*02:07	*15:27	*46:01	*01:02	*04:01	SSP SSO	A*02:474
3766	*02	*02	*15 (B62)	*46									SSO	
3808	*02		*15	*46	*01	*04			*15:27					
4079	*02		*15	*46	*01	*04	*02:06	*02:07	*15:27	*46:01	*01:02	*04:01	SSP SSO	C*04:221
4251	*02	*02	*15	*46	*01	*04	*02:06	*02:07	*15:27	*46:01	*01:02:01G	*04:01P	SSO SBT	
5133							*02:06:01:01	*02:07:01	*15:27:01	*46:01:01	*01:02:01	*04:01:01	NGS	
5214	*02		*15 (B62)	*46	*01	*04							RT-PCR	
5462	*02	*02	*15	*46	*01	*04	*02:06	*02:07	*15:27	*46:01	*01:02	*04:01	SSP SSO NGS	
6649	*02		*15	*46									SSP	
8001	*02		*15 (B62)	*46	*01	*04							SSO	
8043	*02	*02	*15	*46	*01	*04	*02:06	*02:07	*15:27	*46:01	*01:02	*04:01	SSP SSO	
8070							*02:06	*02:07	*15:27	*46:01	*01:02	*04:01	SBT	

Table 15. Individual laboratory results for Cell #1613-1616 by serology

Investigator	Days Old	Cell No 1613 (Hispanic)									Cell No 1614 (Hispanic)						Cell No 1615 (Hispanic)								Cell No 1616 (Chinese)											
		Viab %	A2	A68	B35	B53	Cw4	Bw4	Bw6	OTHERS	Viab %	A68	B48	B53	Cw4	Cw8	Bw4	Bw6	OTHERS	Viab %	A26	A31	B70	B35	Cw4	Cw7	Bw6	OTHERS	Viab %	A2	B62	B46	Cw1	Cw4	Bw6	OTHERS
Cecka, J. Mic	2	95	+	+	+	+		+	+		95	+	+	+			+	+		95	+	+	B71	+			+		95	+	+	+			+	
Dunckley, Hea	8	95	+	A28	+	+					95	A28	+	+						90	+	+	B15	+				90	+	+	+					
Enczmann, J		95	+	+	+	+					95	+	+	+						95	+	+	+	+				95	+	+	+					
Fort, Marylis	3	96	+	+	+	+					95	+	+	+			+	+		95	+	+	B71	+			+	90	+	+	+				+	
Hahn, Amy B.		99	+	+	+	+					99	+	+	+			+	+		99	+	+		+			+	99	+	+	+				+	
Hogan, Patric	13	50	+	+	+	+	+	+	+		0									85	+	+	B15	+	+	+	+	85	+	+	+	+	+	+		
Latham, Katy	3	95	+	+	+	+					95	+	+	+			+	+	A28	99	+	+	+	+			+	90	+	+	+				+	
Permpikul, Ve	6	90	+	+	+	+					90	+	+	+			+	+		90	+	+		+			+	90	+	+	+				+	
Pule, Ziningi		90	+	+	+	B5	+				85	A28	+	+	+	+				90	+	+	+	+	+	+		90	+	+	B70		+		A68,Cw3	
Rees, Tracey		90	+	+	+	+	+				90	+	+	+	+	+				90	+	+	+	+	+	+		90	+	+	+	+	+			
Renac, Virgin		100	+	A28	+	+					100	A28	+	+			+	+		100	+	+	B15	+			+	100	+	B15	+				+	
Shai, Isaac	9	94	+	A28	+	+	+	+	+	B5,Cw5	92	A28	+	+	+	+	+	+	A2	90	A10	+	+	+	+	+	+	90	+	+		+	+	+	B75,Cw3	
Vidan-Jeras,	6	100	+	+	+	+	+	+	+		80	+	+	+	+	+	+	+		97	+	+	+	+	+	+	+	98	+	B15		+	+	+		
Villard, Jean		90	+	+	+	+	+	+	+		90	+	+	+	+	+	+	+																		

SERUM EXCHANGE #562

The results for **Serum Exchange 562 (sera 1241 - 1244)**, are summarized in Tables 16 -22 and individual laboratory results by method are listed in

Tables 23-34. Sera strongly positive to A3, A10, and A11 were examined in this study.

1241	method	#labs	A3	A11	A1101	A1102	A31	A66	A6601	A6602	A25	A26	A34	A29	A30	A32	A68	A69	A28	A33	A74	A36	A43	A24	A2403	A1	Cw12	A23	A80	B18	Cw6	Cw17
class I	NIH-Std	1	no consensus																													
	NIH-Ext	2	100%	100%			100%	100%																								
	AHG	3	100%	100%			100%	100%			100%	67%	67%	67%	67%	67%	67%	33%	33%	100%	67%											
	Luminex	28	100%	82%	36%	36%	100%	86%	32%	32%	100%	100%	100%	100%	100%	100%	100%	100%		100%	100%	96%	96%	89%	36%	86%	68%	18%	100%	96%	54%	50%
	Flow	3	no specificities assigned																													
	C1q	3	100%	100%			100%	67%	33%	33%	100%	100%	100%	100%	100%	100%	100%	100%		100%	100%		100%			67%						
	Other	3	67%	67%			67%	67%			67%	67%	67%	67%	67%	67%	67%			67%		33%		33%		33%	33%					

1241	method	#labs	NEG			
class II	NIH-Ext	1	no specificities assigned			
	Luminex	16	88%			
	Flow	3	100%			
	C1q	2	50%			
	Other	3	67%			

Serum 1241 was reported as strongly positive to A3, A11, and A10 (A66) by all methods, except Flow. Additional reactivity to other 1C and 10C specificities, as well as reactivity to A28 (A68, A69), was reported

by various methods. Allele specific A*11:01, A*11:02, A*66:01, and A*66:02 reactivity was reported by a few Luminex Labs. This sample was reported to be negative for class II.

1242	method	#labs	A3	B62	B63	A11	A1102	A1101	B72	B71	B56	B49	B50	B75	A1	A24	A2403	Cw10	Cw1	Cw14	Cw9	Cw18	Cw4	B73	B57	B77	A36	A80	B35	B76	B52	B53		
class I	NIH-Std	1	no consensus																															
	NIH-Ext	2	100%																															
	AHG	3	100%	67%	33%	33%			33%		67%	33%	67%	67%	33%	33%		33%																
	Luminex	28	100%	100%	100%	81%	37%	37%	100%	96%	100%	100%	93%	96%	93%	93%	41%	93%	96%	96%	93%	89%	89%	100%	100%	100%	96%	93%	93%	93%	89%	89%		
	Flow	3	no specificities assigned																															
	C1q	3	100%	33%	33%	33%			33%		33%	33%						100%	100%	100%	100%	100%	100%	33%										
	Other	3	67%	67%	67%	67%			67%	67%																								
1242	method	#labs	A32	A29	A30	A31	A33	A25	A26	A23	Cw6	B70	B46	B58	B13	A74	B51	A34	B55	B78	B7801	B45	B44	A43	B61	A66	A6601	A6602	Cw5	Cw15	Cw8	Cw3	Cw403	
	AHG	3	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%																						
	Luminex	28	78%	59%	59%	59%	48%	48%	22%	33%	11%	7%	78%	78%	74%	70%	70%	59%	48%	59%	11%	41%	22%	26%	26%	22%	11%	11%	59%	33%	19%	11%	11%	

1242	method	#labs	DQ6	DQ7	DQ8	DQ9	DR11	DR12	DR13	DR14	DR15	DR16	DR17	DR18	DR8	DR52	DPw3	DPw6	DP18	
class II	NIH-Ext	1	no specificities assigned																	
	Luminex	26	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%	96%	96%	92%	
	Flow	3	no specificities assigned																	
	C1q	2	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
	Other	3	67%	67%	67%	67%	67%	67%	67%	67%	67%	67%	67%	67%	67%	33%	33%	33%	33%	
1242	method	#labs	DP28	DPw4	DP10	DP14	DP17	DP9	DP20	DR103	DR4	DP23	DP19	DPA1*01	DPA1*03	DQ4	DR9	DPw1	DP11	DPw2
	Luminex	26	92%	77%	65%	88%	88%	88%	62%	96%	85%	58%	54%	54%	54%	42%	35%	35%	21%	
	C1q	2	100%	50%	50%	50%	50%	50%	100%											100%
	Other	3	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	

For **Serum 1242**, strong anti-A3 reactivity was reported by all methods, except Flow. In addition, reactivity to A1, A11, A24, B56, and reactivity to a number of 5C specificities, was reported by various methods. Allele specific A*11:01, A*11:02, and A*24:03 reactivity was reported by some labs. Additional C-locus reactivity (Cw1, Cw4, Cw9, Cw10, Cw14, Cw18) was also re-

ported by antiglobulin, Luminex, and C1q. For class II, strong DQ, DR, as well as DP reactivity was reported for this sample by Luminex and C1q. Allele specific DRB5*01:01 reactivity was also detected by a few (n=4) labs.

1243	method	#labs	A25	A26	A34	A11	A1101	A1102	A66	A6601	A6602	A33	A29	A31	A32	A74	A3	A43	A30	A36	A68	A69	A1	B8	B60	B61	B38	B39
class I	NIH-Std	1	no consensus																									
	NIH-Ext	2	100%	100%	100%	100%			100%			50%		50%														
	AHG	3	67%	67%	67%	67%			67%			33%	33%		33%	33%	33%								33%	33%	33%	33%
	Luminex	28	100%	100%	100%	82%	36%	36%	82%	36%	36%	100%	100%	100%	100%	100%	100%	96%	100%	100%	100%	100%	96%	100%	96%	50%	57%	46%
	Flow	3	no specificities assigned																									
	C1q	3	100%	100%	100%	67%			67%	33%	33%							100%							33%			
	Other	3	67%	67%	67%	67%			67%			67%	67%	67%	67%	33%	67%	33%	67%	33%	67%	67%	33%					
1243	method	#labs	A80	B41	B42	B7	B73	B48	B81	B8101	Cw6	Cw7	Cw18	Cw10	Cw9	B75	B67	B77	B37	B44	B703	B47	B49	Cw2				
	Luminex	28	100%	100%	100%	100%	96%	93%	86%	25%	71%	68%	71%	57%	43%	68%	50%	36%	21%	21%	18%	14%	14%	14%				

1243	method	#labs	DQ7	DQ8	DQ9	DQ6	DR11	DR4	DR8	DR13	DQ4	DR103	DR16	DR15	DR53	DR1404	DR14		
class II	NIH-Ext	1	no consensus																
	Luminex	26	100%	100%	100%	46%	100%	100%	100%	92%	27%	38%	85%	42%	35%	23%	8%		
	Flow	3	no specificities assigned																
	C1q	2	100%	100%	100%	50%	100%	100%	100%	100%									
	Other	3	67%	67%	67%	33%	67%	67%	67%		33%								

Serum 1243 was reported as strongly positive to A10 (A25, A26, A34, A66) and A11. Allele specific A*11:01, A*11:02, A*66:01, and A*66:02 reactivity was reported by some Luminex labs. In addition, reactivity to A32, A74, as well as reactivity to a number of 1C specificities, was reported by

various methods. Additional reactivity to A80 and 7C specificities was reported by Luminex. For class II, reactivity to a number of DQ (DQ6, DQ7, DQ8, DQ9) and DR (DR4, DR8, DR11, DR13) specificities was reported by Luminex and C1q. Allele specific DRB1*13:03 reactivity was also reported by several labs.

1244	method	#labs	A25	A26	A66	A6601	A6602	A34	A2	A43	B60	B61	A11	A1101	A1102	A1	A36	A69	A68	A33	A29	B47	B7	B42	B81	B8101	Cw5	Cw8	Cw18	Cw6	A80
class I	NIH-Std	1	no consensus																												
	NIH-Ext	2		50%																											
	AHG	3	100%	100%	100%			67%	33%		33%	33%	33%									33%									
	Luminex	28	100%	100%	82%	36%	36%	100%	100%	96%	100%	100%	82%	36%	36%	100%	100%	100%	89%	86%	71%	100%	100%	96%	79%	25%	100%	100%	11%	29%	100%
	Flow	3	no specificities assigned																												
	C1q	3	100%	100%	33%	67%				33%	67%							33%									100%	100%	33%	33%	
	Other	3	67%	67%	67%			67%	67%	33%	67%	67%	67%			33%	33%		33%	33%	33		67%	67%	67%						

1244	method	#labs	B27	B2708	B55	B13	B67	B73	B64	B48	B41	B18	B46	B54	B65	B39	B3901	B38	B8	B37	B45	B59	Cw9	Cw10	Cw1	Cw16	Cw14	Cw17	Cw12	A203	B703
	Luminex	28	100%	46%	100%	96%	93%	93%	89%	86%	86%	79%	79%	79%	79%	71%	18%	68%	68%	64%	54%	54%	75%	75%	71%	68%	50%	50%	36%	32%	18%

1244	method	#labs	DQ5	DQ6	DR9	DR14	DR53	DR7	DR10	DR11	DR12	DR13	DR4	DR8	DR17	DR18	DR52	DR1	DR103	DR51	DQ8	DQ9	DQ7	DQA1*03	DQ4	DQA1*01	DPA1*03
class II	NIH-Ext	1	no specificities assigned																								
	Luminex	26	100%	100%	100%	100%	96%	100%	100%	100%	100%	100%	100%	100%	96%	96%	96%	96%	92%	92%	96%	92%	88%	54%	46%	35%	
	Flow	3	no specificities assigned																								
	C1q	2	50%	100%	100%	50%	50%																				
	Other	3	67%	67%	67%	67%	33%	67%	67%	67%	33%	67%	33%	33%	67%	67%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%	33%

For **Serum 1244**, strong A10 (A26) reactivity was reported by all methods, except Flow. Additional reactivity to A2, A11, A34, A66, and B40 (B60, B61), as well as reactivity to a number of 7C specificities, was reported by various methods. Allele specific A*11:01, A*11:02, A*66:01, and A*66:02 reactivity was also reported by some labs. For class II, anti-DQ5, -DQ6, -DR9, -

DR14, and -DR53 reactivity was reported by Luminex and C1q. Additional strong reactivity to a number of other DR and DQ antigens was reported by Luminex and PRA.

NEXT MAILING DATE: August 8, 2018

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Table 16. Summary of the 562nd Serum Exchange (Serum #1241-1244) by NIH-Standard and NIH-Extended - class I

Method: NIH-Standard											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
1 typing Lab			1 typing Lab			1 typing Lab			1 typing Lab		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
no consensus			no consensus			no consensus			no consensus		

Method: NIH-Extended											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A66	100%	100%	A3	100%	93%	A26	100%	100%	A26	50%	100%
A3	100%	93%				A66	100%	100%			
A11	100%	71%				A11	100%	75%			
A31	100%	67%				A25	100%	67%			
						A34	100%	50%			
						A33	50%	100%			
						A31	50%	67%			

Table 17. Summary of the 562nd Serum Exchange (Serum #1241-1244) by Antiglobulin and Other - class I

Method: Antiglobulin											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A11	100%	100%	A3	100%	100%	A11	67%	100%	A25	100%	100%
A25	100%	100%	B50	67%	100%	A25	67%	100%	A26	100%	100%
A3	100%	100%	B56	67%	100%	A26	67%	100%	A66	100%	100%
A31	100%	100%	B62	67%	100%	A34	67%	100%	A34	67%	50%
A33	100%	100%	B63	33%	100%	A66	67%	100%	B47	33%	100%
A66	100%	100%	B70	33%	100%	A29	33%	100%	B60	33%	100%
A26	67%	100%	B72	33%	100%	A3	33%	100%	B61	33%	100%
A29	67%	100%	Cw10	33%	100%	A32	33%	100%	A11	33%	85%
A30	67%	100%	A11	33%	77%	A33	33%	100%	A2	33%	79%
A32	67%	100%	B49	33%	67%	A74	33%	100%			
A34	67%	100%				B38	33%	100%			
A68	67%	100%				B39	33%	100%			
A74	67%	100%				B60	33%	100%			
A28	33%	100%				B61	33%	100%			
A69	33%	100%									

Method: Other											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A11	67%	100%	A11	67%	100%	A11	67%	100%	A11	67%	100%
A25	67%	100%	A3	67%	100%	A25	67%	100%	A2	67%	100%
A26	67%	100%	B62	67%	100%	A26	67%	100%	A25	67%	100%
A29	67%	100%	B63	67%	100%	A29	67%	100%	A26	67%	100%
A3	67%	100%	B71	67%	100%	A3	67%	100%	A34	67%	100%
A30	67%	100%	B72	67%	100%	A30	67%	100%	A66	67%	100%
A31	67%	100%	B75	67%	100%	A31	67%	100%	B42	67%	100%
A32	67%	100%	A1	33%	100%	A32	67%	100%	B60	67%	100%
A33	67%	100%	A23	33%	100%	A33	67%	100%	B61	67%	100%
A34	67%	100%	A24	33%	100%	A34	67%	100%	B7	67%	100%
A66	67%	100%	A25	33%	100%	A66	67%	100%	B81	67%	100%
A68	67%	100%	A26	33%	100%	A68	67%	100%	A1	33%	100%
A69	67%	100%	A29	33%	100%	A69	67%	100%	A29	33%	100%
A1	33%	100%	A30	33%	100%	A1	33%	100%	A33	33%	100%
A23	33%	100%	A31	33%	100%	A36	33%	100%	A36	33%	100%

Table 18. Summary of the 562nd Serum Exchange (Serum #1241-1244) by Luminex - class I

Method: Luminex											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
28 typing Labs			28 typing Labs			28 typing Labs			28 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A25	100%	100%	A3	100%	100%	A25	100%	100%	A1	100%	100%
A26	100%	100%	B49	100%	100%	A26	100%	100%	A2	100%	100%
A29	100%	100%	B56	100%	100%	A29	100%	100%	A25	100%	100%
A3	100%	100%	B57	100%	100%	A3	100%	100%	A26	100%	100%
A30	100%	100%	B62	100%	100%	A30	100%	100%	A34	100%	100%
A31	100%	100%	B63	100%	100%	A31	100%	100%	A36	100%	100%
A32	100%	100%	B72	100%	100%	A32	100%	100%	A69	100%	100%
A34	100%	100%	B73	100%	100%	A33	100%	100%	A80	100%	100%
A68	100%	100%	B77	100%	100%	A34	100%	100%	B27	100%	100%
A69	100%	100%	A36	96%	100%	A36	100%	100%	B47	100%	100%
A74	100%	100%	B71	96%	100%	A68	100%	100%	B55	100%	100%
A80	100%	100%	B75	96%	100%	A69	100%	100%	B60	100%	100%
A33	100%	46%	Cw1	96%	100%	A74	100%	100%	B61	100%	100%
A36	96%	100%	Cw14	96%	100%	A80	100%	100%	B7	100%	100%
A43	96%	100%	A1	93%	100%	B41	100%	100%	Cw5	100%	100%
B18	96%	100%	A24	93%	100%	B42	100%	100%	Cw8	100%	92%
A24	89%	100%	A80	93%	100%	B7	100%	100%	A43	96%	100%
A1	86%	100%	B35	93%	100%	B8	100%	100%	B13	96%	100%
A66	86%	100%	B50	93%	100%	A1	96%	100%	B42	96%	100%
A11	82%	100%	B76	93%	100%	A43	96%	100%	B67	93%	100%
Cw12	68%	100%	Cw10	93%	100%	B60	96%	100%	B73	93%	100%
Cw6	54%	100%	Cw9	93%	100%	B73	96%	50%	A68	89%	100%
Cw17	50%	100%	B52	89%	100%	B48	93%	100%	B64	89%	100%
A1101	36%	100%	B53	89%	100%	B81	86%	100%	B48	86%	100%
A1102	36%	100%	Cw18	89%	100%	A11	82%	100%	A33	86%	50%
A2403	36%	100%	Cw4	89%	100%	A66	82%	100%	B41	86%	33%
A6601	32%	100%	A11	81%	100%	Cw18	71%	100%	A11	82%	100%
A6602	32%	100%	A32	78%	100%	Cw6	71%	100%	A66	82%	100%
A23	18%	100%	B46	78%	100%	Cw7	68%	100%	B18	79%	100%
			B58	78%	33%	B75	68%	50%	B46	79%	100%
			B13	74%	100%	B38	57%	100%	B54	79%	100%
			A74	70%	100%	Cw10	57%	50%	B65	79%	100%
			B51	70%	100%	B61	50%	100%	B81	79%	100%
			A30	59%	100%	B67	50%	100%	Cw10	75%	100%
			Cw5	59%	100%	B39	46%	100%	Cw9	75%	100%

Table 18. Summary of the 562nd Serum Exchange (Serum #1241-1244) by Luminex - class I

Method: Luminex - cont.												
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***			
28 typing Labs			28 typing Labs			28 typing Labs			28 typing Labs			
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	
			A29	59%	100%	Cw9	43%	100%	B39	71%	100%	
			A31	59%	100%	A1101	36%	100%	Cw1	71%	100%	
			A34	59%	100%	A1102	36%	100%	A29	71%	50%	
			B78	59%	100%	A6601	36%	100%	B38	68%	100%	
			A25	48%	100%	A6602	36%	100%	B8	68%	100%	
			A33	48%	100%	B77	36%	100%	Cw16	68%	100%	
			B55	48%	100%	B8101	25%	100%	B37	64%	100%	
			A2403	41%	100%	B37	21%	100%	B45	54%	100%	
			B45	41%	100%	B44	21%	100%	B59	54%	100%	
			A1101	37%	100%	B703	18%	100%	Cw14	50%	100%	
			A1102	37%	100%	B47	14%	100%	Cw17	50%	100%	
			A23	33%	100%	B49	14%	100%	B2708	46%	100%	
			Cw15	33%	100%	Cw2	14%	100%	A1101	36%	100%	
			A43	26%	100%	B13	11%	100%	A1102	36%	100%	
			B61	26%	100%	B18	11%	100%	A6601	36%	100%	
			A26	22%	100%	B27	11%	100%	A6602	36%	100%	
			A66	22%	100%	B40	11%	100%	Cw12	36%	100%	
			B44	22%	100%	B46	11%	100%	A203	32%	100%	
			Cw8	19%	100%	B62	11%	100%	Cw6	29%	100%	
			A6601	11%	100%	B64	11%	100%	B8101	25%	100%	
			A6602	11%	100%	B65	11%	100%	B3901	18%	100%	
			B7801	11%	100%	Cw12	11%	100%	B703	18%	100%	

Table 19. Summary of the 562nd Serum Exchange (Serum #1241-1244) by C1q and Flow Cytometry - class I

Method: C1q											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
A11	100%	100%	A3	100%	100%	A25	100%	100%	A25	100%	100%
A25	100%	100%	Cw1	100%	100%	A26	100%	100%	A26	100%	100%
A26	100%	100%	Cw10	100%	100%	A34	100%	100%	Cw5	100%	100%
A29	100%	100%	Cw14	100%	100%	A43	100%	100%	Cw8	100%	100%
A3	100%	100%	Cw18	100%	100%	A11	67%	100%	A43	67%	100%
A30	100%	100%	Cw4	100%	100%	A66	67%	100%	A6601	67%	100%
A31	100%	100%	Cw9	100%	100%	A6601	33%	100%	A2	33%	100%
A32	100%	100%	A11	33%	100%	A6602	33%	100%	A66	33%	100%
A33	100%	100%	B49	33%	100%	B8	33%	100%	A69	33%	100%
A34	100%	100%	B56	33%	100%				Cw18	33%	100%
A43	100%	100%	B62	33%	100%				Cw6	33%	100%
A68	100%	100%	B63	33%	100%						
A69	100%	100%	B72	33%	100%						
A74	100%	100%	B73	33%	100%						
A66	67%	100%	Cw6	33%	100%						
Cw12	67%	100%									
A6601	33%	100%									
A6602	33%	100%									

Method: Flow Cytometry											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
3 typing Labs			3 typing Labs			3 typing Labs			3 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
no specificities assigned			no specificities assigned			no specificities assigned			no specificities assigned		

Table 20. Summary of the 562nd Serum Exchange (Serum #1241-1244) by NIH-Standard and Other - class II

Method: NIH-Extended											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
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 specificities assigned			no specificities assigned			no consensus			no specificities assigned		

Method: Other											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
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	67%	100%	DQ6	67%	100%	DQ7	67%	100%	DQ5	67%	100%
DQA1*02	33%	100%	DQ7	67%	100%	DQ8	67%	100%	DQ6	67%	100%
			DQ8	67%	100%	DQ9	67%	100%	DR10	67%	100%
			DQ9	67%	100%	DR11	67%	100%	DR11	67%	100%
			DR11	67%	100%	DR4	67%	100%	DR13	67%	100%
			DR12	67%	100%	DR8	67%	100%	DR14	67%	100%
			DR13	67%	100%	DP10	33%	100%	DR17	67%	100%
			DR14	67%	100%	DP11	33%	100%	DR18	67%	100%
			DR15	67%	100%	DP13	33%	100%	DR7	67%	100%
			DR16	67%	100%	DP14	33%	100%	DR9	67%	100%
			DR17	67%	100%	DP15	33%	100%	DP14	33%	100%
			DR18	67%	100%	DP17	33%	100%	DP17	33%	100%
			DR8	67%	100%	DP9	33%	100%	DP20	33%	100%
			DP10	33%	100%	DPA1*02	33%	100%	DP9	33%	100%
			DP11	33%	100%	DPw1	33%	100%	DPA1*03	33%	100%
			DP14	33%	100%	DPw5	33%	100%	DPw2	33%	100%
			DP17	33%	100%	DPw6	33%	100%	DPw3	33%	100%
			DP18	33%	100%	DQ4	33%	100%	DPw4	33%	100%
			DP19	33%	100%	DQ6	33%	100%	DPw5	33%	100%
			DP20	33%	100%	DQA1*01	33%	100%	DPw6	33%	100%
			DP23	33%	100%	DQA1*02	33%	100%	DQ4	33%	100%
			DP28	33%	100%	DQA1*03	33%	100%	DQ7	33%	100%
			DP9	33%	100%	DQA1*04	33%	100%	DQ8	33%	100%
			DPA1*01	33%	100%	DQA1*05	33%	100%	DQ9	33%	100%
			DPA1*02	33%	100%	DQA1*06	33%	100%	DQA1*01	33%	100%

Table 21. Summary of the 562nd Serum Exchange (Serum #1241-1244) by Luminex - class II

Method: Luminex											
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***		
16 typing Labs			26 typing Labs			26 typing Labs			26 typing Labs		
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion
NEG	88%	100%	DQ6	100%	100%	DQ7	100%	100%	DQ5	100%	100%
DQ4	6%	100%	DQ8	100%	100%	DQ9	100%	100%	DQ6	100%	100%
DR52	6%	100%	DQ9	100%	100%	DR11	100%	100%	DR10	100%	100%
			DR11	100%	100%	DR4	100%	100%	DR11	100%	100%
			DR12	100%	100%	DR8	100%	100%	DR12	100%	100%
			DR13	100%	100%	DQ8	100%	86%	DR13	100%	100%
			DR14	100%	100%	DR13	92%	67%	DR14	100%	100%
			DR15	100%	100%	DR16	85%	100%	DR4	100%	100%
			DR16	100%	100%	DQ6	46%	50%	DR7	100%	100%
			DR17	100%	100%	DR15	42%	100%	DR8	100%	100%
			DR18	100%	100%	DR103	38%	100%	DR9	100%	100%
			DR8	100%	100%	DR53	35%	100%	DQ8	96%	100%
			DQ7	96%	100%	DQ4	27%	25%	DR1	96%	100%
			DR103	96%	100%	DR1404	23%	100%	DR17	96%	100%
			DR52	96%	100%	DR52	12%	100%	DR18	96%	100%
			DP18	92%	100%	DQA1*03	8%	100%	DR52	96%	100%
			DP28	92%	100%	DR14	8%	100%	DR53	96%	100%
			DPw3	92%	100%	DR7	8%	100%	DQ9	92%	100%
			DPw6	92%	100%				DR103	92%	100%
			DP14	88%	100%				DR51	92%	100%
			DP17	88%	100%				DQ7	88%	100%
			DP9	88%	100%				DQA1*03	54%	100%
			DPw2	88%	100%				DQ4	46%	73%
			DR4	85%	20%				DQA1*01	35%	100%
			DPw4	77%	100%				DR1404	27%	100%
			DP10	65%	100%				DR1403	23%	100%
			DP20	62%	100%				DR3	12%	100%
			DP23	58%	100%				DQ2	12%	20%
			DP19	54%	100%						
			DPA1*01	54%	100%						
			DPA1*03	54%	100%						
			DQ4	42%	100%						
			DR9	35%	100%						
			DPw1	35%	50%						

Table 22. Summary of the 562nd Serum Exchange (Serum #1241-1244) by C1q and Flow Cytometry - class II

Method: C1q												
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***			
2 typing Labs			2 typing Labs			2 typing Labs			2 typing Labs			
Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	Antigen	Consensus	Inclusion	
NEG	50%	100%	DP18	100%	100%	DQ7	100%	100%	DQ6	100%	100%	
			DP20	100%	100%	DQ8	100%	100%	DR9	100%	100%	
			DP28	100%	100%	DQ9	100%	100%	DQ5	50%	100%	
			DPw2	100%	100%	DR11	100%	100%	DR14	50%	100%	
			DPw3	100%	100%	DR13	100%	100%	DR53	50%	100%	
			DPw6	100%	100%	DR4	100%	100%				
			DQ6	100%	100%	DR8	100%	100%				
			DQ7	100%	100%	DQ6	50%	100%				
			DQ8	100%	100%							
			DQ9	100%	100%							
			DR11	100%	100%							
			DR12	100%	100%							
			DR13	100%	100%							
			DR14	100%	100%							
			DR15	100%	100%							
			DR16	100%	100%							
			DR17	100%	100%							
			DR18	100%	100%							
			DR52	100%	100%							
			DR8	100%	100%							
			DP10	50%	100%							
			DP14	50%	100%							
			DP17	50%	100%							

Method: Flow Cytometry												
*** Serum 1241 ***			*** Serum 1242 ***			*** Serum 1243 ***			*** Serum 1244 ***			
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	100%	100%	no specificities assigned			no specificities assigned			no specificities assigned			

Table 23. Individual laboratory results for Serum #1241-1244 by NIH-Standard and NIH-Extended - class I

**** Serum 1241 ****							**** Serum 1242 ****			**** Serum 1243 ****						**** Serum 1244 ****			Method		
Ctr	% POS	A10	A11	A3	Other		% POS	A3	Other		% POS	A10	A11	Other			% POS	A10		Other	
786	15	+	+	+			7	+			11	+	+				8	+			STD

STD = NIH-Standard

**** Serum 1241 ****							**** Serum 1243 ****						**** Serum 1244 ****			Method								
Ctr	% POS	A66	A3	A11	A31	Other		% POS	A3	Other		% POS	A26	A66	A11		A25	A34	Other		% POS	A26	Other	
725	46	+	+	+	+			32	+			37	+	+	+	+	+	A31,A33		9	+			EXT
3753	35	+	+	+	+			10	+			30	+	+	+	+	+			1				EXT

EXT - NIH Extended

Table 24. Individual laboratory results for Serum #1241-1244 by Antiglobulin and Other - class I

**** Serum 1241 ****														**** Serum 1242 ****																
Ctr	% POS	A11	A25	A3	A31	A33	A66	A26	A29	A30	A32	A34	A68	A74	Other	% POS	A3	B50	B56	B62									Other	Method
774	88	+	+	+	+	+	+	+	+	+	+	+	+	+	A28	48	+	+	+	+									A11,B70,B49,B63 >	Antiglobulin
786	33	+	+	+	+	+	+						+			14	+											Cw10	Antiglobulin	
910		+	+	+	+	+	+	+	+	+	+		+	+	A69		+	+	+	+										Antiglobulin

**** Serum 1243 ****										**** Serum 1244 ****																			
Ctr	% POS	A11	A25	A26	A34	A66				Other	% POS	A25	A26	A66	A34													Other	Method
774	98										51	+	+	+	+													A11,A2,B60,B61 >	Antiglobulin
786	21	+	+	+	+	+					19	+	+	+															Antiglobulin
910		+	+	+	+	+				B60,B61,A29,A32>		+	+	+	+														Antiglobulin

**** Serum 1241 ****														**** Serum 1242 ****																
Ctr	% POS	A11	A25	A26	A29	A3	A30	A31	A32	A33	A34	A66	A68	A69	Other	% POS	A11	A3	B62	B63	B71	B72	B75						Other	Method
2400	91															100														LMX Phenotype
3753	92	+	+	+	+	+	+	+	+	+	+	+	+	+		56	+	+	+	+	+	+	+							LMX PRA
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	Cw6,A24,A1,A74>		+	+	+	+	+	+	+					A1,A23,A24>	Other	

**** Serum 1243 ****										**** Serum 1244 ****																					
Ctr	% POS	A11	A25	A26	A29	A3	A30	A31	A32	A33	A34	A66	A68	A69	Other	% POS	A11	A2	A25	A26	A34	A66	B42	B60	B61	B7	B81	A1	A29	Other	Method
2400	98															98															LMX Phenotype
3753	96	+	+	+	+	+	+	+	+	+	+	+	+	+		74	+	+	+	+	+	+	+	+	+	+	+	+			LMX PRA
4322		+	+	+	+	+	+	+	+	+	+	+	+	+	Cw6,B15,B60,B61>		+	+	+	+	+	+	+	+	+	+	+	+	B81,A1,Cw6,B48>	Other	

Table 25. Individual laboratory results for Serum #1241 by Luminex - class I

		**** Serum 1241 ****																																
Ctr	% POS	A25	A26	A29	A3	A30	A31	A32	A34	A68	A69	A74	A80	A33	A36	A43	B18	A24	A1	A66	A11	Cw12	Cw6	Cw17	A1101	A1102	A2403	A6601	A6602	Other	Method			
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							A23	LMX		
725		+	+	+	+	+	+	+	+	+	+	+	+	+		+					+	+											LMX	
731	27	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						+	+	+	+	+			LMX	
774	87	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+										LMX
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	A23	LMX		
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						A23	LMX		
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
3224	92	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+			LMX	
3582		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						A23,Cw18	LMX		
3632	92	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								LMX	
3753	92	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+								LMX	
3766	93	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A23	LMX			
3808	27	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									LMX	
3966	30	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
5214		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
5219	23	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+		+	+	A10,A19,A28,A1C>	LMX		
5462		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
6649	28	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
8043	94	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B60,B61,B62,B44>	LMX		
8045	27	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+					LMX	
8048	87	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX	
8058	32	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX	
8062		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX
8086	32	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX
8103	26	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX

Table 27. Individual laboratory results for Serum #1243 by Luminex - class I

		**** Serum 1243 ****																																							
Ctr	% POS	A25	A26	A29	A3	A30	A31	A32	A33	A34	A36	A68	A69	A74	A80	B41	B42	B7	B8	A1	A43	B60	B73	B48	B81	A11	A66	Cw18	Cw6	Cw7	B75	B38	Cw10	B61	B67	B39	Cw9	Other	Method		
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B49,B50,B13,B47 >	LMX	
725		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
731	23	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B8101,A1101,A1102,A6601 >	LMX		
774	93	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B77,A1101,A1102,A6601 >	LMX	
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
3224	95	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B8101,A1101,A1102,A6601 >	LMX	
3582		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,B78,B62,B49 >	LMX
3632	95	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B77	LMX
3766	98	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B77,B37,A1101,A1102 >	LMX
3808	34	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
3966	66	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
5214		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
5219	32	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B40,A10,B703,A19 >	LMX	
5462		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B8101,A1101,A1102,A6601 >	LMX
6649	43	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B44,B703,B77,B8101 >	LMX	
8043	96	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A24,B78,B62,B49 >	LMX
8045	33	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B703	LMX
8048	45	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B40,B62,B8101,A1101 >	LMX
8058	48	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B44,B77	LMX
8062		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B77,B37	LMX
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B49,B47,B44,B77 >	LMX
8086	39	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX	
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B703,B8101,A1101,A1102 >	LMX
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
8103	34	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	B40,B15,B703,B8101 >	LMX

Table 29. Individual laboratory results for Serum #1241-1244 by C1q and Flow Cytometry - class I

Ctr	**** Serum 1241 ****														**** Serum 1242 ****							**** Serum 1243 ****							**** Serum 1244 ****							Method									
	% POS	A11	A25	A26	A29	A3	A30	A31	A32	A33	A34	A43	A68	A69	A74	A66	Cw12	Other	% POS	A3	Cw1	Cw10	Cw14	Cw18	Cw4	Cw9	Other	% POS	A25	A26	A34	A43	A11	A66	Other		% POS	A25	A26	Cw5	Cw8	A43	A6601	Other	
3632	69	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			60	+	+	+	+	+	+	+	A11,B62, B49>	35	+	+	+	+	+	+	B8	62	+	+	+	+	+	+	+	A2,A69	C1q
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+	+	+			+	+	+	+	+	+									A66	C1q		
786		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A6601, A6602		+	+	+	+	+	+	Cw6		+	+	+	+	+		A6601, A6602		+	+	+	+	+	+		Cw6, Cw18	C1q	

Ctr	**** Serum 1241 ****														**** Serum 1242 ****							**** Serum 1243 ****							**** Serum 1244 ****							Method									
	% POS														Other	% POS										Other	% POS														Other				
3224	100																		90									99																	FC
5214	98																		99									99																	FC
8067	96																		98									96																FC	

Table 30. Individual laboratory results for Serum #1241 - #1244 by NIH-Extended and Other - class II

**** Serum 1241 ****											**** Serum 1242 ****												
Ctr	% POS										Other	% POS										Other	Method
3753	61											82											EXT

**** Serum 1243 ****											**** Serum 1244 ****												
Ctr	% POS	DQ7	DQ8	DQ9	DR11						Other	% POS										Other	Method
3753	66	+	+	+	+							7											EXT

EXT = NIH-Extended

**** Serum 1241 ****											**** Serum 1242 ****																	
Ctr	% POS	DQA1*02									Other	% POS	DQ6	DQ7	DQ8	DQ9	DR11	DR12	DR13	DR14	DR15	DR16	DR17	DR18	DR8	Other	Method	
2400	0											100																LMX Phenotype
3753	0											97	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX PRA
4322		+											+	+	+	+	+	+	+	+	+	+	+	+	+	DR103,DR4>	Other	

**** Serum 1243 ****											**** Serum 1244 ****																				
Ctr	% POS	DQ7	DQ8	DQ9	DR11	DR4	DR8	DP10	DP11	DP13	DP14	DP15	DP17	DP9	Other	% POS	DQ5	DQ6	DR10	DR11	DR13	DR14	DR17	DR18	DR7	DR9	DP14	DP17	DP20	Other	Method
2400	80															100															LMX Phenotype
3753	53	+	+	+	+	+	+								97	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX PRA	
4322		+	+	+	+	+	+	+	+	+	+	+	+	DR103,DR12>		+	+	+	+	+	+	+	+	+	+	+	+	+	DR1,DR103>	Other	

Table 31. Individual laboratory results for Serum #1241 - #1242 by Luminex - class II

**** Serum 1241 ****					**** Serum 1242 ****																																										
Ctr	% POS	DQ4	DR52	Other	% POS	DQ6	DQ8	DQ9	DR11	DR12	DR13	DR14	DR15	DR16	DR17	DR18	DR8	DQ7	DR103	DR52	DP18	DP28	DPw3	DPw6	DP14	DP17	DP9	DPw2	DR4	DPw4	DP10	DP20	DP23	DP19	DPA1*01	DPA1*03	DQ4	DR9	DPw1	DP402	DPA1*04	DP401	DR1403	DR1404	Other	Method	
615	0					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR51, DRB5*01:01	LMX	
731	0				66	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR1,DR3>	LMX
774	0				100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
910						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
2400						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DP11,DP13 DP11,DP13, DRB5*01:01	LMX
3224					91	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
3582						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DRB5*01:01	LMX
3632	0				95	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR51,DQ5>	LMX
3753	0					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DRB5*01:01	LMX
3766	0				99	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DP11,DP13	LMX
3808	0				66	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR3	LMX
3966					63	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DQA1*01>	LMX
5214						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPA1*01:03, DPA1*03:01	LMX
5219	0				63	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR2,DR3>	LMX
5462	0					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
6649	0				67	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		LMX
8043	0				97	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR10,DR51	LMX
8045	0				61	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPw5	LMX
8048	0				94	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DP11	LMX
8058	9	+			81	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR51,DQ2>	LMX
8062						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR51	LMX
8082			+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR51, DQA1*01>	LMX
8086					66	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DP11,DP13	LMX
8098						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPw5, DQA1*01	LMX
8100	0					+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DP11,DP13	LMX
8103					60	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DR1,DR3>	LMX

Table 32. Individual laboratory results for Serum #1243 by Luminex - class II

**** Serum 1243 ****														Method			
Ctr	% POS	DQ7	DQ9	DR11	DR4	DR8	DQ8	DR13	DR16	DQ6	DR15	DR103	DR53		DQ4	DR1404	Other
615		+	+	+	+	+	+	+	+	+	+	+	+	+		DPA1*02,DRB1*13:03	LMX
731	23	+	+	+	+	+	+	+							+		LMX
774	57	+	+	+	+	+	+	+									LMX
910		+	+	+	+	+	+	+									LMX
2400		+	+	+	+	+	+	+	+	+							LMX
3224	74	+	+	+	+	+	+	+	+	+	+		+	+		DRB1*13:03	LMX
3582		+	+	+	+	+	+	+	+	+	+	+	+	+		DR7,DR9,DR12,DPA1*02,DRB3*01:01, DRB3*03:01,DRB5*01:01	LMX
3632	99	+	+	+	+	+	+	+	+		+	+				DR7,DR52,DPw6	LMX
3753		+	+	+	+	+	+		+				+			DRB1*13:03,DQB1*06:01,DQB1*06:03, DQB1*06:09	LMX
3766	89	+	+	+	+	+	+	+	+	+	+	+	+	+			LMX
3808	23	+	+	+	+	+	+	+							+	DR14	LMX
3966	23	+	+	+	+	+	+	+	+				+			DQA1*01,DQA1*03,DQA1*05,DQA1*06	LMX
5214		+	+	+	+	+	+		+			+				B*15:02, DRB1*13,DQB1*06	LMX
5219	22	+	+	+	+	+	+	+	+							DR2,DR5,DR6,DR1403 >	LMX
5462		+	+	+	+	+	+	+	+	+						DRB1*13:03,DRB1*13:01	LMX
6649	42	+	+	+	+	+	+	+	+		+				+	DR52	LMX
8043	80	+	+	+	+	+	+	+	+	+					+		LMX
8045	27	+	+	+	+	+	+	+	+		+				+	DR52	LMX
8048	66	+	+	+	+	+	+	+	+		+	+					LMX
8058	95	+	+	+	+	+	+	+	+	+	+	+	+	+		DR1,DR7,DR9,DR10 >	LMX
8062		+	+	+	+	+	+	+	+	+		+	+			DQA1*03	LMX
8082		+	+	+	+	+	+	+	+	+	+	+	+			DQA1*01,DQA1*03,DQA1*05,DQA1*06	LMX
8086	28	+	+	+	+	+	+	+	+	+		+		+			LMX
8098		+	+	+	+	+	+	+	+						+		LMX
8100		+	+	+	+	+	+	+	+	+							LMX
8103	24	+	+	+	+	+	+	+	+						+	DR14,DQ3	LMX

Table 33. Individual laboratory results for Serum #1244 by Luminex - class II

**** Serum 1244 ****																													
Ctr	% POS	DQ5	DQ6	DR10	DR11	DR12	DR13	DR14	DR4	DR7	DR8	DR9	DQ8	DR1	DR17	DR18	DR52	DR53	DQ9	DR103	DR51	DQ7	DQA1*03	DQ4	DQA1*01	DR1404	DR1403	Other	Method
615		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DPw1,DPw2,DPw3,DPw5, DRB5*02:02,DRB5*01:01 >	LMX
731	56	+	+	+	+	+	+	+	+	+	+	+	+	+					+						+	+	+	DR3	LMX
774	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					LMX
910		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					LMX
2400		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DQA1*02	LMX
3224	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+				LMX
3582		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						LMX
3632	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						LMX
3753		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DQ2	LMX
3766	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					LMX
3808	40	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+							+	+		DR3	LMX
3966	71	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			DQA1*05,DQA1*06	LMX
5214		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						LMX
5219	54	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+	DR3,DR5,DR6,DQ1 >	LMX
5462		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						LMX
6649	57	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+		LMX
8043	100	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DR15,DR16	LMX
8045	54	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+		LMX
8048	94	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+						LMX
8058	62	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DQ2	LMX
8062		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					LMX
8082		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+			DQA1*05,DQA1*06	LMX
8086	55	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DQ2	LMX
8098		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+	+		LMX
8100		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				DQ2	LMX
8103	47	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		+	+				+	+	+	DR3,DQ3	LMX

Table 34. Individual laboratory results for Serum #1241 - #1244 by C1q and Flow - class II

**** Serum 1241 ****				**** Serum 1242 ****																**** Serum 1243 ****							**** Serum 1244 ****												
Ctr	% POS		Other	% POS	DP18	DP20	DP28	DPw2	DPw3	DPw6	DQ6	DQ7	DQ8	DQ9	DR11	DR12	DR13	DR14	DR15	DR16	DR17	DR18	DR52	DR8	Other	% POS	DQ7	DQ8	DQ9	DR11	DR13	DR4	DR8	Other	% POS	DQ6	DR9	Other	Method
2400	NT				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DPw4		+	+	+	+	+	+	+			+	+		C1q
3632	0			90	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	DP9,DP10>	71	+	+	+	+	+	+	+	DQ6	77	+	+	DR14,DR53,DQ5	C1q

**** Serum 1241 ****				**** Serum 1242 ****																**** Serum 1243 ****							**** Serum 1244 ****												
Ctr	% POS		Other	% POS																					Other	% POS								Other	% POS			Other	Method
3224	0			100																					DRB5*01:01	77								DRB1*13:03	100				FC
5214	0			99																							79									97			FC
8067	0			95																							91									100			FC

FC = Flow cytometry