

Report of the 28th Single Antigen, Flow and Virtual Crossmatch Exchange

June 28, 2023

Cells	163-164
Serum	165-168

In this current study, serum 162 (patient 2) and virtual donor V1 from Exchange 27 (April 2023) are re-examined as serum 165 and cell 163. A comparison of virtual crossmatch predictions (VXM) (serum 162 vs. V1) against the physical flow crossmatch (FXM) (**serum 165 vs. cell 163**) are summarized in **Part 1** of this report. **Part 2** examines the Luminex single

antigen (SAB) data for the 4 sera tested (**sera 165 - 168**). **Part 3** summarizes the FXM results for 2 cells (**cells 163 - 164**) against the 4 sera. Finally, in **Part 4**, the VXM predictions for 3 potential donors (V1 - V3) against 2 sera (serum 167 and serum 168) are evaluated.

Part 1

Physical Flow Cytometric Crossmatch vs. Virtual Crossmatch

Direct comparisons of VXM predictions with physical FXM outcomes are shown in Tables 1a – 1c. Eighteen labs submitted virtual crossmatch predictions in Exchange 27. Among them, 12 labs reported back physical FXM results in Exchange 28 (Table 1a). For donor V1 vs. serum 162, 11/12 labs predicted the T-cell FXM to be negative and 11/12 labs predicted the B

-cell FXM to be positive. In Exchange 28, all 11 labs reported the physical T-cell FXM as negative in the absence of class I DSA, and all 11 reported the physical B-cell FXM as positive in the presence of class II DSA (DR9, DR11) (Table 1b). Interestingly, the 1 lab which predicted the T-cell FXM to be positive, reported the physical T-cell FXM as positive as well.

Table 1a. Summary of Virtual XM predictions vs. Physical Flow XM results - Direct comparison

Exchange 027					Exchange 028				
Virtual Crossmatch - Donor V1 vs. Serum 162 (Patient)					Physical Flow Crossmatch - Cell 163 vs. Serum 165				
Donor	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Cell	Serum no.	#Labs	T-cell Results	B-cell Results
V1	162	12	NEG (11) POS (1)	POS (11) Borderline (1)	163	165	12	NEG (11) POS (1)	POS (12)

Table 1b. Direct comparison of Physical Flow Crossmatch results vs. Virtual Crossmatch results

		T-cell Virtual XM (Exchange 27)			B-cell Virtual XM (Exchange 27)		
		+	-	Ø	+	-	Ø
Physical T-cell FXM (Exchange 28)	+	1			11		1
	-		11				
	Ø						
Physical B-cell FXM (Exchange 28)		+	11			1	
		-					
		Ø					

+/- = positive/negative

Ø = borderline/not typed

n = number of labs

The reporting of DSA and DSA strength was consistent across the 2 studies (Table 1c). In Exchange 27, anti-DR9 and -DR11 reactivity was reported against donor V1, with respective MFI = 6060 and 3844. In addition anti-DP2 (3194) reactivity was reported by a number of labs as well. In this

present study, DR9 (5274) and DR11 (3271) were reported once again as DSA, along with DP2 (2727). Median MFI values for each were similar to those reported in the previous study.

Table 1c. Individual Physical Flow Crossmatch results vs. Virtual Crossmatch predictions - Direct Comparison

Cell #163 HLA genotype: A*11:01:01-B*15:01:01 B*40:01:02-C*03:04:01 C*04:01:01-DRB1*09:01:02 DRB1*11:01:01-DRB3*02:02:01 DRB4*01:03:01-DQA1*03:02:01 DQA1*05:05:01-DQB1*03:01:01G DQB1*03:03:02-DPA1*02:02-DBP1*02:02:01G-DBP1*05:01:01G

Exchange 027					Exchange 028				
Virtual Crossmatch - Donor V1 vs. Serum 162 (Patient 2)					Physical Flow Crossmatch - Cell 163 vs. Serum 165				
Ctr	Virtual T-cell Prediction	Class I DSA(MFI)	Virtual B-cell Prediction	Class II DSA(MFI)	Ctr	T-Cell RESULT	Class I DSA(MFI)	B-Cell RESULT	Class II DSA(MFI)
230	Negative	No class I DSA	Positive	DR9(9718) DR11(6150)	230	Negative	No class I DSA	Positive	DR9, DR11
792	Negative	No class I DSA	Positive	DR9(5872) DR11(2736)	792	Negative	No class I DSA	Positive	DR9(5465), DR11(2857)
1426	Negative	No class I DSA	Positive	DR9(6169) DR11(3767)	1426	Negative	No class I DSA	Positive	DRB1*09:01(5281), DRB1*11:01(3059)
2400	Negative	No class I DSA	Positive	DR9(5971) DR11(3480) DPw 2(3659)	2400	Negative	No class I DSA	Positive	DRB1*09:01(4721), DRB1*11:01(2401), DPB1*02:01(2455)
3224	Negative	No class I DSA	Positive	DR9(6146) DR11(4162) DPw 2(3754)	3224	Negative		Positive	
3753	Negative	No class I DSA	Positive	DR9(4733) DR11(2518) DPw 2(2627)	3753	Negative	No class I DSA	Positive	DR9(2518), DR11(1499)
3808	Negative	No class I DSA	Positive	DR9(1647) DR11(2396) DPw 2(1021)	3808	Negative	No class I DSA	Positive-weak	DRB1*11:01(2368), DRB1*09:01(1819). DPw 2(1080)
8001	Negative	No class I DSA	Positive	DR9(6275) DR11(3058)	8001	Negative	No class I DSA	Positive	DRB1*09:01(6284) DRB1*11:01(3090)
8050	Negative	No class I DSA	Positive	DR9(5989) DR11(3238) DPw 2(2429)	8050	Negative	No class I DSA	Positive	DR9(6052) DR11(3246) DP2(2204)
8083	Negative	No class I DSA	Positive	DR9(7372) DR11(3864) DPw 2(4354)	8083	Negative	No class I DSA	Positive	DRB1*09:01(6676), DRB1*11:01(3726),
8103	Positive	Cw 4 (1141)	Borderline	DR9(4049) DR11(2504) DR53(606) DQ3(1262) DPw 2(1390) DPw 5(664) DPA1*02(2662)	8103	Positive	C*04:01 (1924)	Positive	DRB1*11:01(2057)
8111	Negative	No class I DSA	Positive	DR9(6400) DR11(3500)	8111	Negative	No class I DSA	Positive	DR9, DR11, DP2

Part 2

Class I and class II Luminex single antigen results for serum samples 165 - 168 are summarized in Tables 12 - 15. Individual listing of results for

each participating laboratory are listed in Tables 16 – 23. Pretreatment and cutoff values are listed in Table 30.

Antibody Identification

Serum 165: This sample was previously examined as serum 162 in Exchange 27. As shown below, the reporting of antibodies and antibody strength was consistent across the 2 studies.

Exchange 27		Exchange 28		Exchange 27		Exchange 28	
Class I		Class I		Class II		Class II	
*** Serum 162 ***		*** Serum 165 ***		*** Serum 162 ***		*** Serum 165 ***	
A2	9085	A2	9197	DP10	2462	DP10	2171
A23	20243	A23	20703	DP14	5457	DP14	4688
A24	19406	A24	20715	DP17	5697	DP17	4722
A25	16007	A25	13681	DP18	2743	DP18	2387
A26	3142	A26	3644	DP20	5673	DP20	4941
A32	19077	A32	19432	DP28	3133	DP28	2826
A33	4571	A33	4362	DP9	5807	DP9	5135
A34	4936	A34	4725	DPw 2	3194	DPw 2	2727
A66	2732	A66	2551	DPw 3	6035	DPw 3	4910
A68	10918	A68	12093	DPw 6	5897	DPw 6	5364
A69	9990	A69	10222	DR1	3387	DR1	2936
B13	14713	B13	15536	DR10	3406	DR10	3300
B37	11607	B37	13402	DR103	3642	DR103	3203
B38	19107	B38	18799	DR11	3844	DR11	3271
B44	13424	B44	12465	DR12	4427	DR12	3706
B47	10852	B47	10802	DR15	8429	DR15	7155
B49	19323	B49	17035	DR16	11582	DR16	11237
B51	15274	B51	14117	DR51	12182	DR51	11095
B52	11710	B52	10290	DR8	5356	DR8	4798
B53	15980	B53	16200	DR9	6060	DR9	5274

For serum 165, anti-DR11 *(3271), -DR9 (5274), and -DP2 (2727) reactivity was detected against cell 163. Against cell 164, labs reported anti-A34 (4725), -Cw18 (4033), and -DP18 (2387) reactivity.

*(median MFI by SAB)

Genotypes of cells provided by UCLA

Cell 163 (Chinese): A*11:01:01-B*15:01:01 B*40:01:02-C*03:04:01 C*04:01:01-DRB1*09:01:02 DRB1*11:01:01-DRB3*02:02:01 DRB4*01:03:01-DQA1*03:02:01 DQA1*05:05:01-DQB1*03:01:01G DQB1*03:03:02-DPA1*02:02-DRB1*02:02:01G-DRB1*05:01:01G

Serum 166: Strong anti-A1 (11383) reactivity was reported in this sample. In addition, reactivity to B18 (4952), B73 (5053), B64 (2814), as well as reactivity to a number of 1C (A11, A23, A36, A80) and 10C (A25, A34, A43, A26) specificities was reported by > 90% of labs. Strong reactivity to a number of DQ and DP specificities was also reported by labs, including anti-DQ7 (15178), -DQ2 (14726), -DP1 (12928), -DP3 (12565), -DP6 (12473), -DP13 (11623), and -DP19 (11090) reactivity.

Multiple DSA (A11, Cw4, DQ7, DQ9, DP5, DPA1*02, DQA1*05) were reported against cell 163, with respective MFI = 6232, 1767, 15178, 5060, 13316, 11438, and 21562. Multiple DSA were also detected against cell 154, with labs reporting anti-A1 (11383), -A34 (5020), -Cw18 (4618), -Cw7 (2586), -B8 (1329), -DQ2 (14726), and -DP18 (6714) reactivity.

Serum 167: Strong class I reactivity was detected in this cell, including anti-B67 (19815), -B38 (18118), -B8 (13436), -B54 (13058), -B55 (11074), and -B18 (10094) reactivity. Eighty-eight percent of labs reported this sample as negative for class II.

Labs were split in the reporting of DSA against cell 163. Eight labs reported weak anti-B62 (1070) reactivity against the cell, while 5 indicated no class I DSA were present. By contrast, strong anti-B8 (13436) reactivity was detected by all labs against cell 164.

Serum 168: Strong reactivity to a number of 7C specificities was detected in this sample, including anti-B7 (14488), -B81 (14011), -B60 (12126), -B27 (11751), -B61 (11538), and -B47 (8413) reactivity. Labs also reported strong DR and DQ reactivity in this sample, including reactivity to DQ6 (23726), DQ5 (23110), DQ8 (21888), DQ9 (21061), DQ7 (19720), DR51 (9100), DR15 (8858), and DR16 (7307).

Multiple DSA (B60, DQ7, DQ9, DR9, DR11, DP5) were reported against cell 163, with DQ9 (21061) being the strongest DSA assigned. Against cell 164, labs reported anti-B81 (14011), -DQ6 (23726), and -DR13 (5924) reactivity.

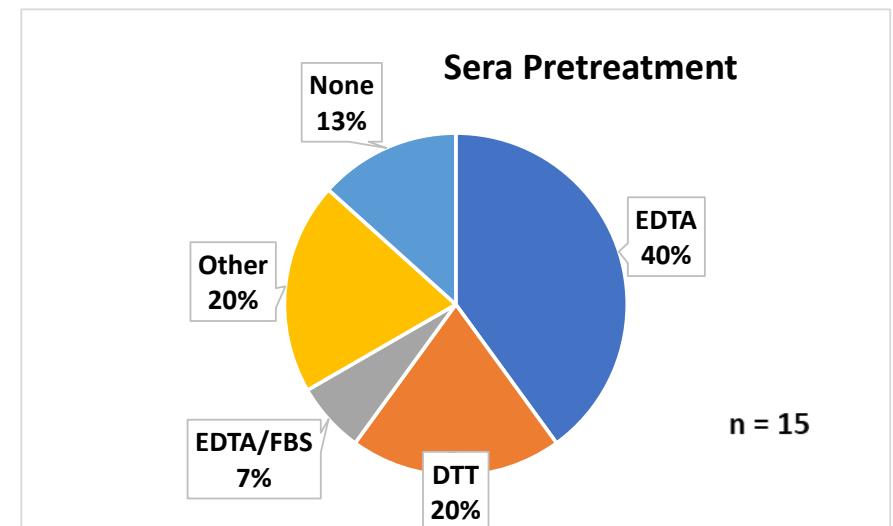
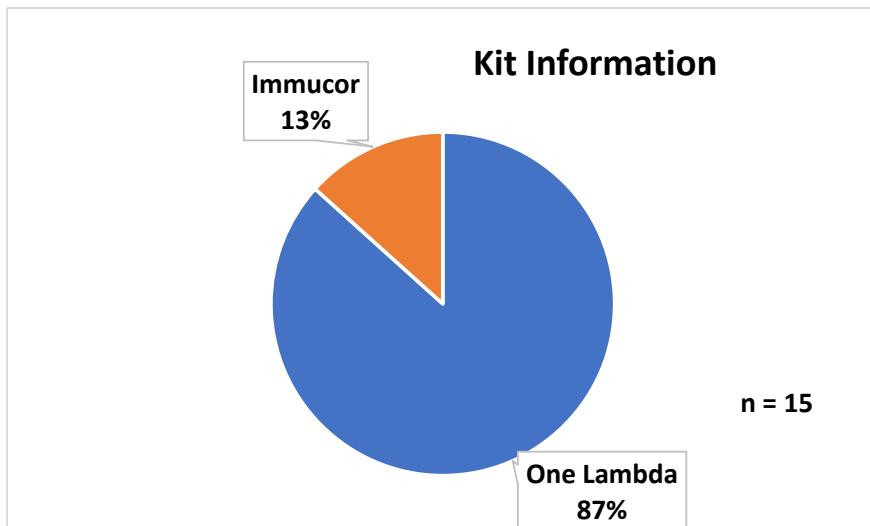
Cell 164 (Black): A*01:01-A*34:02-B*08:01 B*81:01:01G-C*07:01:01G-C*18:01:01G-DRB1*03:01 DRB1*13:01-DRB3*01:01-DRB3*02:02:01G-DQA1*01:03 DQA1*05:01-DQB1*02:01-DQB1*06:08-DPA1*01:03-DRB1*04:01-DRB1*18:01

Conclusion:

A total of 16 labs submitted single antigen data for samples 165 - 168. Among the 16 labs, 15 labs submitted kit type and pretreatment information. Thirteen labs (87%) used One Lambda's single antigen bead kit and 2 labs (13%) used kits from Immucor (Figure 1). All but 2 labs treated the sera prior to testing. EDTA was used by the majority of labs (n = 6) fol-

lowed by DTT (n = 3). Across all 4 sera, > 90% agreement was achieved in the reporting of class I and II antibodies. In each case, antibody strength for peak antibodies was > 11000 MFI.

Figure 1. Kit information and sera pretreatment breakdown



Part 3

Flow cytometric crossmatch results for cell 163 and cell 164 against serum samples 165 - 168 are summarized in Table 2. Individual results for

each laboratory, along with reported class I and class II DSA for each serum sample, are listed in tables 4 - 11.

Flow Cytometric Crossmatch

Cell 163. For cell 163, ≥ 80% agreement was achieved for 6 out of 8 T/B-cell FXM. Among the positive FXM, multiple DSA or DSA of > 12000 MFI were present. For the remaining FXM against serum 167, no agreement was achieved for either the T-cell or B-cell FXM, with a number of labs (n= 5) noting there were neither class I or class II DSA present.

Cell 164. For cell 164, ≥ 80% agreement was achieved for all 8 T/B-cell FXM against the 4 sera. In each case, multiple DSA or DSA > 13000 MFI were present.

Table 2. Summary of Flow crossmatch results for Cell #163- #164 vs. Serum #165 - #168

Cell no.	Serum no.	#Labs	T-cell Results	B-cell Results	Cell no.	Serum no.	#Labs	T-cell Results	B-cell Results
163	165	14	NEG(13) POS(1)	POS(14)	164	165	14	POS(12) NEG(1) Borderline(1)	POS(12) NEG(2)
163	166	14	POS(14)	POS(14)		166	14	POS(14)	POS(14)
163	167	14	NEG(11) POS(1) Borderline(2)	NEG(9) POS(3) Borderline(1) NT(1)		167	14	POS(14)	POS(12) NEG(2)
163	168	14	POS(14)	POS(14)		168	14	POS(14)	POS(14)

consensus < 80%

Conclusion:

In the presence of multiple DSA or a single strong DSA (> 12000 MFI), ≥ 80% agreement was achieved in the reporting of positive T/B-cell FXM. However, as DSA strength fell below 5000 MFI, we observed discrepancies in FXM outcomes. In the case of cell 164 vs. serum 165, for example, several discrepancies were observed in which labs reported the T/B-cell FXM as negative or borderline despite the presence of multiple DSA (A34, Cw18, DP18). A closer look revealed the strength of each DSA was < 5000 MFI. In addition, 2 of the DSA (Cw18 and DP18) were at low expression loci.

For cell 163 vs. 167, T/B-cell FXM outcomes were mixed among labs and labs were split in the reporting of DSA. Eight labs reported anti-B62 (1070) reactivity against the cell. Among them, 2 reported the T-cell FXM as borderline and 1 reported it as positive. Interestingly, despite 88% of labs reporting serum 167 as negative for class II, 2 labs did indicate there were class II DSA present. Both labs reported the B-cell FXM as positive, along with 1 other lab. One lab reported the B-cell FXM as borderline.

Part 4

Virtual crossmatch predictions for donor V1 - V3 against serum samples 167 and 168 are summarized in Table 3 and individual laboratory pre-

dictions are listed in Tables 24 - 29. Fictional donor histories precede each patient-donor summary.

Virtual Crossmatch Paper Challenge

For virtual **T-cell predictions** of the expected T-cell FXM, ≥ 80% agreement was achieved for 5 out of 6 challenges. In each case, either multiple DSA or DSA of > 5000 MFI were present. For the remaining challenge, serum 168 vs. donor V3 agreement was 76%, with the majority of labs predicting the expected T-cell FXM to be positive in the presence of a single DSA (B56, 4312 MFI).

For virtual **B-cell predictions** of the expected B-cell FXM, all 6 were predicted to be positive. In each case, ≥ 80% agreement was achieved in the presence of class I and/or class II DSA of > 5000 MFI.

Table 3. Summary of Virtual Crossmatch Predictions (Serum #167 - #168 vs. Donors V1 - V3)

Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Predicted Risk Assessment	Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Predicted Risk Assessment
V1	167	17	POS(16) Borderline(1)	POS(14) NEG(2) Borderline(1)	Acceptable(1) Unacceptable(16)	V2	167	17	POS(17)	POS(15) NEG(2)	Unacceptable(17)
V1	168	17	POS(16) Borderline(1)	POS(17)	Unacceptable(17)	V2	168	17	POS(17)	POS(17)	Unacceptable(17)
Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Predicted Risk Assessment						
V3	167	17	POS(15) Borderline(2)	POS(14) NEG(2) NT (1)	Acceptable(1) Unacceptable(15) Other(1)						
V3	168	17	POS(13) NEG(2) Borderline(2)	POS(17)	Unacceptable(17)						

consensus < 80%

DSA Identification

Patient 1 (Serum 167)

Patient's fictional case history: This individual is a 23-year-old male being evaluated for his first transplant. Patient 1's HLA type is as follows:
A*02:06-A*24:02-B*40:02-B*40:01-C*01:02-C*03:04-DRB1*07:01-DRB1*10:01-DRB4*01:01-DQA1*02:01-DQA1*01:01-DQB1*03:01-DQB1*05:01-
DPA1*02:01-DPA1*02:02-DPB1*01:01-DPB1*10:01.

Anti-B53 (3842) and -B14 (B65) (4260) reactivity was reported against donor **V1** by all labs. In the presence of multiple DSA, 16 labs predict the expected T-cell FXM to be positive and 1 lab predicts it to be borderline. Greater variability was observed in virtual B-cell predictions due to the absence of class II DSA. Fourteen labs predict the expected B-cell FXM to be positive, 2 labs predict it to be negative, and 1 lab predicts it to be borderline. Predicted risk of transplant were in agreement with T-cell predictions, as all but 1 lab assessed the predicted risk as unacceptable.

Against donor **V2**, strong anti-B54 (13058) reactivity was reported. No class II DSA were assigned. Due to the presence of strong class I DSA, 17 labs predict the expected T-cell FXM to be positive, and 15 labs predict the expected B-cell FXM to be positive. Two labs reported a negative virtual B-cell prediction. For predicted renal transplant risk, all 17 labs assessed the risk as unacceptable.

Anti-B56 (3535) and -B35 (6307) reactivity was reported against **donor V3** by > 90% of labs. No class II DSA were reported. For T-cell predictions, 15 labs predict the expected T-cell FXM to be positive and 2 predict it to be borderline. For B-cell predictions, 14 labs predict the expected B-cell FXM to be positive due to class I DSA and 2 labs predict it to be negative. For transplant risk, the 15 labs predicting a positive T-cell FXM each assessed the predicted risk as unacceptable. One lab noted further investigation was required to assess risk as the DSA detected by the Immucor kit was too weak.

Virtual Donors – HLA genotype

Donor 1 (V1): A*66:01-A*68:02-B*14:02-B*53:01-C*06:02:01G-C*08:02-DRB1*13:02-DRB1*13:03-DRB3*01:01-DRB3*03:01-DQA1*01:02:01G-DQA1*05:01:01G-DQB1*03:01:01G-DQB1*06:04:01G-DPA1*01:03-DPA1*02:01-
DPB1*04:01-DPB1*17:01:01G.

Donor 2 (V2): A*02:03-B*54:01-B*15:12-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.

Donor 3 (V3): A*03:01-B*35:01-B*56:01-C*01:02-C*04:01-DRB1*01:02-DQA1*01:01-DQB1*05:01:01G-DPA1*01:03-DPB1*02:01:04G-DPB1*04:02:01G.

Patient 2 (Serum 168)

Patient's fictional case history: This individual is a 56-year-old female being evaluated for her second transplant. The HLA type of the first transplant was A*66:02-A*24:02-B*38:01-B*15:03-C*04:01-C*07:02-DRB1*03:01-DRB3*01:01-DQA1*02:01-DQB1*02:01-DPA1*02:01-DPA1*01:03-DPB1*01:01-DPB1*04:01. Patient 2's HLA type is as follows: A*26:01-A*23:01-B*38:01-B*15:03-C*04:01-C*07:02-DRB1*03:01-DRB1*03:02-DRB3*01:01-DRB3*02:02-DQA1*02:01-DQB1*02:01-DPA1*02:01-DPA1*01:03-DPB1*01:01-DPB1*04:01.

Multiple DSA (A68, DQ6, DQ7, DR13) were reported against **donor V1** by all labs. Respective MFI's for each were 5330, 23726, 19720, and 5924. Greater than 90% of labs predict the expected T/B-cell FXM for this donor-patient pair to be positive. One lab reporting the strength of the class I DSA as < 5000 MFI, predicts the expected T-cell FXM to be borderline. All 17 labs assess the predicted risk of transplant to be unacceptable.

Against **donor V2**, anti-A2 (7816), -DQ4 (20592), -DQ5 (23110), -DR15 (8858), and -DR4 (3900) reactivity was reported by $\geq 90\%$ of labs. B54 (3185) was also reported as a DSA by 14 labs. For virtual predictions, all 17 labs predict the expected T/B-cell FXM to be positive in the presence of multiple DSA of > 7000 MFI. In line with virtual XM predictions, all 17 labs assess the predicted risk of transplant as unacceptable.

Class I DSA assignment and virtual T-cell predictions were not graded for this patient against **donor V3**. Fifteen labs reported B56 (4312) as a DSA, while 2 labs noted there were no class I DSA present. As a result, T-cell predictions were mixed among labs. Thirteen labs predict the expected T-cell FXM to be positive, 2 predict it to be negative, and 2 predict borderline results. By contrast, > 90% of labs reported strong anti-DQ5 (23110) and -DR1 (5100) reactivity against donor V3. Consequently, all 17 labs predict the expected B-cell FXM to be positive and assess the predicted risk of transplant as unacceptable.

Conclusion

For **serum 167** against all 3 serum samples, > 80% agreement was achieved for T/B-cell predictions. Against donors V1 and V3, several discrepancies were observed for T-cell predictions despite the presence of multiple DSA. This may have been due to the strength of each DSA which was < 6400 MFI. This may have also led to the discrepancies observed for B-cell predictions. As this sample was class II negative, virtual B-cell predictions were based on class I only.

For **serum 168**, 2 out of 3 virtual T-cell predictions and all 3 virtual B-cell predictions achieved > 80% agreement among labs. In each case, multiple DSA were present. Against donor V3, no agreement was achieved in either virtual T-cell predictions or in the reporting of class I DSA. This may be due to the presence of a single DSA (B56) of < 4300 MFI. Two labs noted there were no class I DSA present.

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Flow Cytometric Crossmatch

Cell #163 HLA genotype: A*11:01:01-B*15:01:01 B*40:01:02-C*03:04:01 C*04:01:01-DRB1*09:01:02 DRB1*11:01:01-DRB3*02:02:01 DRB4*01:03:01-DQA1*03:02:01 DQA1*05:05:01-DQB1*03:01:01G

Table 4. Individual Flow crossmatch results and DSA reported for Cell #163 vs. Serum #165

	Serum Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	165	1.9	0.3				Negative	No class I DSA	3.4	4.2			Positive	DR9, DR11	0.85	1.35	YES
615	165	350	255				Negative	No class I DSA	353	526			Positive-Moderate	DRB1*09:01 (7119); DRB1*11:01 (3971); DPA1*02:01, DPB1*03:01 (7239)	262	280	YES
792	165	57	4				Negative	No class I DSA	107	268			Positive	DR9(5465), DR11(2857)	268	293	YES
1426	165	63	-14.5				Negative	No class I DSA	83	252.5			Positive	DRB1*11:01 (3059)	264.5	282.5	YES
2400	165		8				Negative	No class I DSA		139			Positive	DRB1*09:01(4721), DRB1*11:01(2401), DPB1*02:01(2455)			YES
3224	165	70					Negative		140	232			Positive		186	173	YES
3753	165	50	26				Negative	No class I DSA	120	339			Positive	DR9(2518), DR11(1499)	197	224	YES
3808	165	355	-98				Negative	No class I DSA	482	95			Positive-weak	DRB1*11:01 (2368), DRB1*09:01 (1819). DPw2 (1080) (No DPB1*0202) bead.	286	370	YES
5214	165	18	2		91		Negative	No class I DSA	27	83		19744	Positive	DR9 (7061), DR11 (4669), DP2 (4505)	262	266	YES
8001	165	50	19				Negative	No class I DSA	100	310			Positive	DRB1*09:01 (6284) DRB1*11:01 (3090)	217	283	YES
8050	165	50	0				Negative	No class I DSA	120	194			Positive	DR9(6052) DR11(3246) DP2(2204)	78	150	YES
8083	165	60	0				Negative	No class I DSA	123	117			Positive	DRB1*09:01 (6676), DRB1*11:01 (3726),			YES
8103	165	1184	173.5	1.2			Positive	C*04:01 (1924)	3648	1304	1.7	101	Positive	DRB1*11:01 (2057)	157.2	1203.6	NO
8111	165	76	0				Negative	No class I DSA	114	912			Positive	DR9, DR11, DP2	260	265	YES

Table 5. Individual Flow crossmatch results and DSA reported for Cell #163 vs. Serum #166

		T-Cell Serum Ctr	Pos no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control	B-Cell NEG Control	Pronase Treated
230	166	1.9	1.94					Positive	A11	3.4	3.7			Positive	DR7,DR9	0.85	1.35	YES
615	166	350	572					Positive	A*11:01 (5544); C*04:01 (1733)	353	682			Positive-strong	DQ7 (18484); DQ9 (5420); DP3 (14313); DP5 (13996)	262	280	YES
792	166	57	189					Positive	A11(5154)	107	354			Positive	DQ7(16745), DP5(12890), DQ9(5066)	268	293	YES
1426	166	63	264.5					Positive	A*11:01 (5976), C*04:01 (1374)	83	374.5			Positive	DPB1*05:01 (7062), DQ7 (~9903), DQB1*03:03 (3179)	264.5	282.5	YES
2400	166	50						Positive	A*11:01(5217), C*04:01(1431)		201			Positive	DQB1*03:01(11252), DQB1*03:03(4818), DPB1*05:01(14067)			YES
3224	166	70	218					Positive		140	317			Positive		186	173	YES
3753	166	50	253					Positive	A11(7822)	120	423			Positive	DQ7(8277), DQ9(1948), DP5(6349), DPA1*02(4510), DQA1*05(10670)	197	224	YES
3808	166	355	262					Positive-strong	A*11:01(1361)	482	249			Positive	DQA1*03:02(3299), DQB1*03:03(5054), DQB1*03:01(7713), DPA1*02:02(9923), DPB1*05:01(9923), DQA1*05(7713)	286	370	YES
5214	166	18	52		5173			Positive	A11 (9425), C4 (2296)	27	104		41091	Positive	DQA05 (21504), DQ7 (2837), DQ9 (4334), DP5 (16047), DPA02 (11438)	262	266	YES
8001	166	50	293					Positive	A*11:01 (5812) C*04:01 (1360)	100	385			Positive	DQA1*05:05 (21621) DQB1*03:01 (20934) DQB1*03:03 (5136) DPB1*05:01 (15827) DPA1*02:02 (15758)	217	283	YES
8050	166	50	257					Positive	A11(9612) Cw4(2926)	120	284			Positive	DQ7(17669) DQ9(7120) DP5(18835) DPA1*02(15586)	78	150	YES
8083	166	60	101					Positive	DRB1*11:01 (9614), C*04:01 (2457)	123	151			Positive	DQB1*7 (22369), DQB1*9(6194), DPA1* 02:02(15451)			YES

Table 5. Individual Flow crossmatch results and DSA reported for Cell #163 vs. Serum #166

		T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
Ctr	Serum no															
8103	166	1184	291.5	1.2	134.3	Positive	A*11:01 (11104) C*04:01 (7625)	3648	1500	1.7	297	Positive	DQB1*03:01 (9083) DQB1*03:03 (3068) DPB1*05:01 (4726)	157.2	1203.6	NO
8111	166	76	542			Positive	A11, Cw4	114	1488			Positive	DQ7, DQ9, DP5	260	265	YES

Table 6. Individual Flow crossmatch results and DSA reported for Cell #163 vs. Serum #167

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	167	1.9	1.79			Borderline	B62	3.4	3.2			Borderline	No class II DSA	0.85	1.35	YES
615	167	350	288			Negative	No class I DSA	353				NT	No class II DSA	262	280	YES
792	167	57	13			Negative	No class I DSA	107	76			Negative	No class II DSA	268	293	YES
1426	167	63	4.5			Negative	B*15:01 (1041 MFI)	83	61.5			Negative	No class II DSA	264.5	282.5	YES
2400	167		14			Negative	No class I DSA		1			Negative	No class II DSA			YES
3224	167	70				Negative		140				Negative		186	173	YES
3753	167	50	39			Negative	No class I DSA	120	111			Negative	No class II DSA	197	224	YES
3808	167	355	-59			Negative	No class I DSA	482	-62			Negative	No class II DSA	286	370	YES
5214	167	18	10		398	Negative	B62 (2327)	27	77		15742	Positive	No class II DSA	262	266	YES
8001	167	50	36			Negative	B*15:01 (1186)	100	106			Positive	DQA1*05:05 (1044)	217	283	YES
8050	167	50	0			Negative	B62 (2327)	120	0			Negative	No class II DSA	78	150	YES
8083	167	60	15			Negative	B62 (2327)	123	-5			Negative	No class II DSA			YES
							B*15:01 (2181) C*04:01 (1410)	3648	1207	1.7	3.4	Negative	No class II DSA	157.2	1203.6	NO
8103	167	1184	156.5	1.2		Borderline	B62 (B15)	114	318			Positive	DQ7	260	265	YES
8111	167	76	77			Positive										

Table 7. Individual Flow crossmatch results and DSA reported for Cell #163 vs. Serum #168

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	168	1.9	10.7			Positive	B60	3.4	97.5			Positive	DR9,DR11,DQ7,DQ9	0.85	1.35	YES
615	168	350	496			Positive-Moderate	B*40:01 (11214)	353	698			Positive-strong	DRB1*09:01 (5040); DRB1*11:01 (5112), DQ7 (20674), DQ9 (21062), DP5 (2269)	262	280	YES
792	168	57	207			Positive	B60(10480)	107	430			Positive	DQ7(18630), DQ9(18492), DR11(3593), DR9(3524), DP5(1656)	268	293	YES
1426	168	63	224.5			Positive	B*40:01 (9832 MFI)	83	427.5			Positive	DPB1*05:01(1042), DQ7(~18226), DQB1*03:03(22426), DRB1*11:01(3727), DRB1*09:01(4241)	264.5	282.5	YES
2400	168		145			Positive	B*40:01(11492)		278			Positive	DRB1*09:01(3453), DRB1*11:01(3074), DQB1*03:01(15226), DQB1*03:03(18311), DPB1*05:01(1648)			YES
3224	168	70	220			Positive		140	389			Positive		186	173	YES
3753	168	50	287			Positive	B60(14138)	120	475			Positive	DR9(3252), DR11(4594), DQ7(20683), DQ9(22778)	197	224	YES
3808	168	355	172			Positive	B*40:01(2923)	482	262			Positive	DRB1*11:01 (1988), DRB1*09:01 (1097), DQB1*03:03 (11619), DQB1*03:01 (8349)	286	370	YES
5214	168	18	71		10888	Positive	B60 (17070)	27	122		78461	Positive	DR9 (5137), DR11 (7202), DQ7 (19931), DQ9 (21865), DP5 (2131)	262	266	YES
8001	168	50	296			Positive	B*40:01 (15567)	100	415			Positive	DRB1*09:01 (4231) DRB1*11:01 (4787) DQB1*03:03 (25026) DQA1*05:05 (25042) DQB1*03:01 (24799)	217	283	YES

Table 7. Individual Flow crossmatch results and DSA reported for Cell #163 vs. Serum #168

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
8050	168	50	224			Positive	B60(13472)	120	314			Positive	DR9(3658) DR11(4765) DQ7(21011) DQ9(23070) DP5(2072)	78	150	YES
8083	168	60	60			Positive	B*40:01 (60) (14835),	123	235			Positive	DRB1*09:01 (5424), DRB1*11:01(5848), DQB1*7 (28224), DQB1*9 (25862),			YES
8103	168	1184	182.5	1.2	25.3	Positive	B*40:01 (10079) C*04:01 (1269)	3648	2400	1.7	1196.4	Positive	DQB1*03:01 (15129) DQB1*03:03 (13069) DQA1*05:05 (15209)	157.2	1203.6	NO
8111	168	76	930			Positive	B60	114	6700			Positive	DR11, DQ7, DQ9, DR9, DP5	260	265	YES

Cell #164 HLA genotype: A*01:01-A*34:02-B*08:01 B*81:01:01G-C*07:01:01G-C*18:01:01G-DRB1*03:01 DRB1*13:01-DRB3*01:01-DRB3*02:02:01G-DQA1*01:03 DQA1*05:01-DQB1*02:01-DQB1*06:08-DPA1*01:03-DPB1*04:01-DPB1*18:01

Table 8. Individual Flow crossmatch results and DSA reported for Cell #164 vs. Serum #165

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	165	3	2.9			Borderline	A34	3	2.7			Positive	DP18	2	1	YES
615	165	371	448			Positive-Moderate	A*34:02 (4997); C*18:02 (3802)	299	460			Positive-Moderate	DPA1*01:04, DPB1*18:01 (3116)	283	226	YES
792	165	57	113			Positive	A34(3871), Cw18(2903)	107	158			Positive	DP18(2815)	266	257	YES
1426	165	63	177			Positive	A*34:02 (5251), C*18:01 (1132)	83	170.5			Positive	DP18 (~2387)	260	285	YES
2400	165		85			Positive	A*34:02(4183), C*18:02(3461)		90			Positive	DPB1*18:01(2004)			YES
3224	165	70	101			Positive		140	58			Positive		167	165	YES
3753	165	50	147			Positive	A34(5300), Cw18(3363)	120	163			Positive		204	222	YES
3808	165	386	124			Positive-moderate	A*34:02(1346)	444	70			Positive-weak	DPB1*18:01(966)	316	331	YES
5214	165	18	55		6484	Positive	A34 (7640), C18 (5365)	27	57		7084	Positive	DP18 (3430)	266	266	YES
8001	165	50	204			Positive	A*34:02 (5475)	100	236			Positive	DPB1*18:01 (3102)	215	224	YES
8050	165	50	116			Positive	A34(3768) Cw18(4267)	120	101			Positive	DP18(1648)	92	135	YES
8083	165	60	16			Negative	A*34:02(5953)	123	24			Negative	DPB1*18:01 (3568)			YES
8103	165	674	332.5	1.2	142.9	Positive	A*34:02 (4442)	1850	585.5	1.7		Negative		189.6	589.9	NO
8111	165	76	300			Positive	A34, C*18	114	295			Positive	DP4, DP18	246	237	YES

Table 9. Individual Flow crossmatch results and DSA reported for Cell #164 vs. Serum #166

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	166	3	3.1			Positive	A1,A34,B8,Cw18	3	6.2			Positive	DQ2,DP18	2	1	YES
615	166	371	545			Positive	A*01:01 (10945); A*34:02 (5059); B*08:01 (1181); C*07:02 (2586); C*18:02 (4403)	299	638			Positive-strong	DQA1*05:01, DQB1*02:01 (24008); DPA1*01:04, DPB1*18:01 (1374)	283	226	YES
792	166	57	174			Positive	A1(10104), A34(4581), Cw18(3930), Cw7(2117)	107	297			Positive	DQ2(21878), DP18(9770), DQ6(2156)	266	257	YES
1426	166	63	261			Positive	A*01:01 (10108), A*34:02 (4650), B*08:01 (1095), C*18:01 (2509), C*07:01 (3254)	83	356.5			Positive	DQ2 (~7628), DP18 (5481)	260	285	YES
2400	166		94			Positive	A*01:01(10338, A*34:02(4393), B*08:01(1373), C*07:02(2407), C*18:02(3578)					Positive	DQA1*05:01/ DQB1*02:01(25550), DPB1*18:01(4952)			YES
3224	166	70	192			Positive		140	238			Positive		167	165	YES
3753	166	50	210			Positive	A1(15484), A34(5867), B8(1434), Cw7(3017), Cw18(5803)	120	368			Positive	DQ2(6304), DQA1*05(10670)	204	222	YES
3808	166	386	186			Positive	A*01:01 (2918) A*34:02 (947)	444	208			Positive	DQB1*02:01 (5583) DQA1*05:01 (7713) DPB1*18:01 (1147)	316	331	YES
5214	166	18	62		8660	Positive	A1 (14891), A34 (7317), C7 (3664), C18 (6967),	27	100		34658	Positive	DQA05 (21504), DQ2 (10366),	266	266	YES
8001	166	50	255			Positive	A*01:01 (11766) A*34:02 (5350) B*08:01 (1258)	100	363			Positive	DQB1*02:01 (26858) DQA1*05:01 (26858) DPB1*18:01 (11068)	215	224	YES
8050	166	50	245			Positive	A1(14908) A34(6285) Cw7(4596) Cw18(7763)	120	292			Positive	DQ2(17745) DP18(6317)	92	135	YES

Table 9. Individual Flow crossmatch results and DSA reported for Cell #164 vs. Serum #166

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
8083	166	60	69			Positive	A*01:01 (17518), A*34:02 (8617), B*08:01 (2737),	123	160			Positive	DQB1*02:01 (28118) * No bead for DQB1* 06:08, DPB1* 18:01 (12614),			YES
8103	166	674	352	1.2	162.4	Positive	A*01:01 (16901) A*34:02(10096) B*08:01 (2901)	1850	759	1.7	169.1	Positive	DQB1*02:01 (11933) DQA1*05:01 (11933)	189.6	589.9	NO
8111	166	76	307			Positive	A1, A24, C*18, B8, Cw7	114	742			Positive	DQ2, DP18	246	237	YES

Table 10. Individual Flow crossmatch results and DSA reported for Cell #164 vs. Serum #167

	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	167	3	6.95			Positive	B8	3	6.55			Positive	B8	2	1	YES
615	167	371	384			Positive-Weak	B*08:01 (10782)	299	370			Positive-weak	No class II DSA	283	226	YES
792	167	57	159			Positive	B8(11187)	107	164			Positive	No class II DSA	266	257	YES
1426	167	63	118			Positive	B*08:01 (11525)	83	101.5			Positive	No class II DSA	260	285	YES
2400	167		83			Positive	B*08:01(12103)					Positive-Due to Class I DSA	Due to Class I DSA			YES
3224	167	70	96			Positive		140	9			Positive		167	165	YES
3753	167	50	75			Positive	B8(14206)	120	128			Positive	No class II DSA	204	222	YES
3808	167	386	47			Positive-weak	B*08:01 (2478)	444	-30			Negative	No class II DSA	316	331	YES
5214	167	18	53			Positive	B8 (17052)	27	52			Positive	No class II DSA	266	266	YES
8001	167	50	179			Positive	B*08:01 (15164)	100	200			Positive	No class II DSA	215	224	YES
8050	167	50	112			Positive	B8(14278)	120	83			Positive	No class II DSA	92	135	YES
8083	167	60	43			Positive	B*08:01 (14641),	123	31			Positive	Due to class I antibodies (B*08:01)			YES
8103	167	674	230.5	1.2	40.9	Positive	B*08:01 (14742)	1850	584	1.7		Negative	No class II DSA	189.6	589.9	NO
8111	167	76	633			Positive	B8	114	814			Positive	No class II DSA	246	237	YES

Table 11. Individual Flow crossmatch results and DSA reported for Cell #164 vs. Serum #168

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA()		B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA()		T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
		3	11.2			Positive	B81		3	55.1			Positive	DR13,DQ6,B81	2	1	YES	
230	168	3	11.2			Positive	B81		3	55.1			Positive	DR13,DQ6,B81				
615	168	371	509			Positive-Moderate	B*81:01 (12958)		299	672			Positive-strong	DRB1*13:01 (6806); DQA1*01:02, DQB1*06:04 (21068)	283	226	YES	
792	168	57	227			Positive	B81(12529)		107	366			Positive	DQ6(21779), DR13(4815)	266	257	YES	
1426	168	63	278			Positive	B*81:01 (12232)		83	422.5			Positive	DRB1*13:01 (4637), DQ6 (~23651)	260	285	YES	
2400	168		157			Positive	B*81:01(12966)			306			Positive	DRB1*13:01(4155), DQB1*06:03(23109)-donor DQB1*06:08			YES	
3224	168	70	237			Positive			140	349			Positive		167	165	YES	
3753	168	50	248			Positive	A1(1316), B81(16966)		120	424			Positive	DR13(5924), DQ6(26398)	204	222	YES	
3808	168	386	153			Positive	B*81:01 (3729)		444	241			Positive	DRB1*13:01 (1615) DQB1*06 (15076) DQA*01:03 (12546)	316	331	YES	
5214	168	18	83		18711	Positive	B81 (18586)		27	119		67899	Positive	DR13 (9153), DQ6 (23240)	266	266	YES	
8001	168	50	281			Positive	B*81:01 (17213)		100	401			Positive	DRB1*13:01 (6147) DQA1*01:03 (26253)	215	224	YES	
8050	168	50	257			Positive	B81(15346)		120	333			Positive	DR13(6297) DQ6(27586)	92	135	YES	
8083	168	60	75			Positive	B*81:01 (16393)		123	245			Positive	DRB1*13:01 (7614) No Bead for DQB1* 06:08 but DQB1* 06:01 (29715)			YES	
8103	168	674	286	1.2	96.4	Positive	B*81:01 (11641)		1850	1005.5	1.7	415.6	Positive	DRB1*13:01 (3051) DQA1*01:03 (18102)	189.6	589.9	NO	
8111	168	76	1075			Positive	B81		114	4293			Positive	DR13, DQ6	246	237	YES	

Single Antigen

Table 12. Summary of Single Antigen results for Serum #165

Class I *** Serum 165 ***								
16 typing Labs								
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max	
A24	16	100%	20715	18858	6277	4298	27723	
A23	16	100%	20703	19511	6153	4180	28215	
A32	16	100%	19432	18122	5533	4054	25365	
B57	16	100%	19365	18608	5422	4351	25372	
B38	16	100%	18799	17573	5280	3976	23847	
B58	16	100%	17996	16713	5195	3282	23734	
B63	16	100%	17674	16391	5038	3897	23658	
B49	16	100%	17035	15917	5209	3047	23067	
B53	16	100%	16200	15241	4647	3478	21532	
B59	16	100%	15829	14903	4638	2625	20974	
B77	16	100%	15143	14270	4254	3557	20195	
B51	16	100%	14117	13514	4519	1994	19067	
A25	16	100%	13681	13016	4416	2116	19037	
B37	16	100%	13402	12272	4112	2088	18220	
B44	16	100%	12465	12682	4111	2651	18223	
A68	16	100%	12093	11702	4139	1981	16571	
B47	16	100%	10802	10348	3534	1913	14671	
B52	16	100%	10290	9750	3311	1597	13980	
A69	16	100%	10222	9600	3680	1190	14308	
A2	16	100%	9197	8720	3181	1256	12420	
A34	16	100%	4725	4609	1846	672	7640	
A33	16	100%	4362	4184	1647	719	6361	
B13	15	93%	15536	14529	5035	2316	20756	
A26	15	93%	3644	3280	1322	568	5357	
Cw2	14	87%	7264	7477	1643	3903	10509	
Cw18	12	75%	4033	4057	609	2903	5365	
Cw6	12	75%	4031	4051	721	2644	5486	
A66	12	75%	2551	2508	845	844	3943	
B27	11	68%	15866	13906	5008	3296	20040	
Bw4	10	62%	17513	16351	6294	4632	24798	
B2705	8	50%	16269	15095	4312	5991	20010	
Cw5	8	50%	1886	2148	629	1609	3589	
Cw15	8	50%	1720	1911	558	1247	2980	
A2403	4	25%	11342	11147	5028	4632	17272	
A203	4	25%	3876	4922	3783	1298	10640	
A6601	3	18%	1977	2529	1648	844	4767	

Class II *** Serum 165 ***								
16 typing Labs								
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max	
DR16	16	100%	11237	10814	3412	4380	15673	
DR51	16	100%	11095	10963	3375	5152	15464	
DR15	16	100%	7155	7031	2481	2673	11714	
DPw6	16	100%	5364	5361	2117	1841	9054	
DR9	16	100%	5274	5129	1947	1528	8772	
DR8	16	100%	4798	4825	1349	2027	6697	
DR11	16	100%	3271	3444	1033	1499	5562	
DR103	16	100%	3203	3094	1226	1090	5223	
DR1	16	100%	2936	2798	1045	1057	4547	
DP9	15	93%	5135	4841	1862	1621	7777	
DPw3	15	93%	4910	5004	1870	1806	7656	
DP17	15	93%	4722	4604	1813	1431	7213	
DP14	15	93%	4688	4582	1735	1442	7302	
DR10	15	93%	3300	3106	1099	772	4971	
DP20	13	81%	4941	5026	1330	2619	7060	
DR12	13	81%	3706	3873	1331	1368	5681	
DP28	13	81%	2826	2796	1003	1002	4351	
DPw2	13	81%	2727	2817	1102	851	4505	
DP18	13	81%	2387	2405	961	783	3891	
DP402	11	68%	2475	2514	825	1162	3947	
DP10	10	62%	2171	2208	553	1374	3094	
DPw4	4	25%	3111	2797	1118	1020	3947	
DR13	2	12%	1588	1587	333	1255	1920	
DR2	1	6%	3902	3902	-	3902	3902	
DPw1	1	6%	1639	1639	-	1639	1639	

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 13. Summary of Single Antigen results for Serum #166

Class I								
*** Serum 166 ***								
16 typing Labs								
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max	
A1	16	100%	11383	11587	3956	2918	17518	
A36	16	100%	6638	7017	2800	1377	11921	
A80	16	100%	6576	7442	3350	1302	14846	
A25	16	100%	5260	5845	2437	1345	11043	
B73	16	100%	5053	5458	2372	1017	10804	
A34	16	100%	5020	5314	2248	947	10096	
B18	16	100%	4952	4996	2168	1040	9325	
A43	16	100%	4543	4971	2073	971	9505	
A11	15	93%	6232	7086	2819	1958	13358	
A26	15	93%	4534	4403	1947	767	7722	
A23	15	93%	3268	3383	1344	714	6084	
B64	15	93%	2814	2874	1215	716	5222	
Cw18	14	87%	4618	5162	2257	1320	10141	
B37	14	87%	3624	4588	2900	1780	13623	
B76	14	87%	2470	3092	1678	815	7584	
A33	14	87%	2448	2469	1361	598	5377	
A66	13	81%	4047	4311	1918	598	7868	
Cw6	13	81%	3340	3929	1651	1508	8408	
Cw7	13	81%	2586	3349	1993	1063	9424	
A24	12	75%	3195	3503	1319	1004	6200	
B65	12	75%	2078	2355	1108	823	5103	
B51	11	68%	1991	2418	1521	590	6171	
B78	11	68%	1551	1852	847	1049	4085	
Cw4	10	62%	1767	2326	1884	526	7625	
B8	10	62%	1329	1544	671	747	2901	
A6601	5	31%	3800	4198	2618	598	7868	
A68	5	31%	1107	1357	545	662	2001	
A1102	3	18%	3716	6344	5011	1958	13358	
A1101	3	18%	3681	5382	4155	1361	11104	
B54	3	18%	542	992	651	522	1913	

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Class II								
*** Serum 166 ***								
16 typing Labs								
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max	
DQ7	16	100%	15178	13681	5749	4501	22369	
DQ2	16	100%	14726	16093	7340	6132	28118	
DPw1	16	100%	12928	12331	3847	4546	18564	
DPw3	16	100%	12565	11828	3911	4816	17633	
DPw6	16	100%	12473	11939	4040	4735	17564	
DP13	16	100%	11623	10755	3130	4881	14930	
DP19	16	100%	11090	10299	3322	4397	15739	
DQ4	16	100%	7639	7454	3030	2001	11962	
DQ9	16	100%	5060	4810	1452	1948	7385	
DQ8	16	100%	4977	4704	1482	2034	6970	
DPw5	15	93%	13316	12727	4023	4726	18835	
DP11	15	93%	13256	12734	3213	5793	17308	
DP9	14	87%	13356	12429	4114	4566	19738	
DP17	14	87%	12692	11883	3992	3980	18762	
DP14	14	87%	12026	11437	3729	4426	17908	
DP20	13	81%	11398	10037	3317	3706	16005	
DP10	12	75%	11802	10845	3785	3784	17036	
DP18	11	68%	6714	7483	3518	1147	12614	
DP15	10	62%	5085	5152	1947	2136	9028	
DR7	10	62%	2391	2401	655	1096	3658	
DQ5	10	62%	2377	2506	833	1134	3820	
DPA1*02	9	56%	11438	11744	4315	4510	17444	
DQA1*05	8	50%	21562	18555	6815	7713	26871	
DQA1*06	8	50%	19041	15771	6665	4161	24818	
DPA1*04	8	50%	6698	5504	2157	2158	7590	
DQA1*04	7	43%	11511	9612	3945	5019	14630	
DQ6	7	43%	2293	2497	835	1444	4334	
DP28	6	37%	7972	8002	1740	5586	10195	
DQA1*02	5	31%	3879	4735	2259	1446	7662	
DQA1*03	4	25%	4944	5520	2306	3299	8897	
DPA1*03	3	18%	7163	8098	4022	3706	13425	
DP85	2	12%	9924	9924	2329	7595	12253	

Table 14. Summary of Single Antigen results for Serum #167

Class I *** Serum 167 *** 16 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
B67	16	100%	19815	18235	4780	6192	23045
B38	16	100%	18118	17146	4110	7340	21522
B8	16	100%	13436	12383	3950	2478	17229
B54	16	100%	13058	12380	3853	2917	16902
B55	16	100%	11074	10692	3670	1595	15876
B18	16	100%	10094	9303	3290	1295	13870
B42	16	100%	9888	9238	3266	1080	13457
B41	16	100%	7152	6789	2380	786	10197
B64	16	100%	6931	6501	2382	1042	9872
B59	16	100%	6453	6347	2261	1571	10868
B35	16	100%	6307	5711	2165	654	8967
B37	16	100%	5122	5079	1835	933	7700
B71	16	100%	4491	4715	1873	854	9393
B75	16	100%	4314	4561	1787	685	7316
B65	16	100%	4260	4328	1767	1004	8780
B53	16	100%	3842	3777	1467	658	6413
B56	15	93%	3535	3706	1398	789	7213
B39	14	87%	19845	18734	3821	7186	22606
B3901	4	25%	13260	13569	5382	7186	20570
B51	14	87%	4194	4250	1365	2407	7858
B49	14	87%	2328	2651	1056	824	5352
B77	13	81%	2551	2692	913	913	4451
B27	12	75%	1945	1966	680	695	3414
B50	12	75%	1661	1915	912	634	4391
B57	11	68%	1900	1919	740	690	3237
B78	10	62%	1563	1744	842	537	3640
B44	10	62%	1364	1484	617	685	2950
B45	9	56%	1508	1666	578	1025	2685
B72	8	50%	1369	1674	780	825	3106
B62	7	43%	1070	1353	589	671	2327
B47	6	37%	1343	1448	496	751	2164
B58	5	31%	1149	1234	386	682	1874

Class I *** Serum 167 *** 16 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
B82	5	31%	1059	1404	849	731	3073
Bw4	4	25%	6640	8153	6485	1000	18335
B63	4	25%	770	1012	602	511	1999
B52	4	25%	706	1082	776	515	2403
Cw15	3	18%	1040	1444	870	640	2653
B15	2	12%	4908	4908	2408	2500	7316
B2708	2	12%	1837	1837	1106	731	2943
B14	1	6%	9872	9872	-	9872	9872

Class II *** Serum 167 *** 16 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
NEG	14	88%	-	-	-	-	-
DQ7	1	7%	300	300	-	300	300
DQA1*05	1	7%	1044	1044	-	1044	1044

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 15. Summary of Single Antigen results for Serum #168

Class I *** Serum 168 ***								
16 typing Labs								
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max	
B7	16	100%	14488	14167	4635	3210	20660	
B81	16	100%	14011	13431	4692	2349	20554	
B8101	2	12%	7685	7685	3956	3729	11641	
B60	16	100%	12126	11676	4348	1780	18384	
B27	16	100%	11751	11509	4193	1082	17732	
B61	16	100%	11538	11024	3990	1629	17016	
B47	16	100%	8413	7960	2765	1921	12891	
B13	16	100%	7826	7810	3030	1065	11877	
A2	16	100%	7816	8360	3292	1552	12861	
B73	16	100%	6942	6531	2160	1385	10070	
B67	16	100%	6571	6350	2456	918	9936	
B42	16	100%	6233	6168	2469	773	9640	
A69	16	100%	5736	5992	2465	1003	9956	
A68	16	100%	5330	5676	2260	1149	8939	
B55	16	100%	5099	5012	2017	717	8127	
B57	16	100%	4262	4314	1618	688	6761	
B58	16	100%	3601	3494	1378	548	5578	
B56	15	93%	4312	4297	1376	820	6525	
B54	15	93%	3185	3303	1085	628	4975	
B82	15	93%	3088	2795	1019	503	4236	
B63	15	93%	3082	3186	1040	778	5142	
B48	14	87%	8557	8646	1874	5624	12582	
A32	11	68%	1850	1911	538	1044	2791	
A6602	10	62%	3549	3458	1099	997	5562	
A66	10	62%	3105	3126	1499	918	5944	
A25	8	50%	1795	1716	360	1096	2288	
A24	7	43%	2015	1958	533	1170	2862	
A30	7	43%	1264	1466	485	1000	2479	
B2708	3	18%	4673	6339	3494	3144	11202	
A203	3	18%	2024	3697	2730	1520	7547	
B2705	2	12%	6788	6788	2958	3830	9746	
B703	2	12%	2744	2744	563	2181	3307	
A23	2	12%	791	791	279	512	1070	
A1	1	6%	1316	1316	-	1316	1316	
A11	1	6%	722	722	-	722	722	
A1102	1	6%	722	722	-	722	722	

Class II *** Serum 168 ***								
16 typing Labs								
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max	
DQ6	16	100%	23726	23445	3973	15076	29715	
DQ5	16	100%	23110	22324	4383	12099	30121	
DQ8	16	100%	21888	21026	3605	14050	27450	
DQ9	16	100%	21061	20321	3986	11619	25862	
DQ4	16	100%	20592	20074	3886	10583	26142	
DQ7	16	100%	19720	19442	4662	8349	28224	
DR51	15	93%	9100	9181	2367	3743	12967	
DR15	15	93%	8858	8895	2411	3729	13134	
DR16	15	93%	7307	7437	2277	2863	11514	
DR13	15	93%	5924	5969	1732	2129	9152	
DR103	15	93%	5532	5813	1671	2127	8738	
DR1	15	93%	5100	5338	1571	1782	8135	
DR11	15	93%	4765	5099	1372	2298	7313	
DR12	15	93%	4182	4505	1347	1735	6778	
DR4	15	93%	3900	4189	1055	1978	6196	
DR9	15	93%	3800	3819	1131	1097	5424	
DR8	15	93%	3212	3299	1052	974	5377	
DR14	14	87%	3227	3312	1273	983	5516	
DR10	12	75%	2339	2471	644	1462	4074	
DPw5	10	62%	1947	1921	470	1079	2757	
DR7	5	31%	1200	1320	196	1136	1670	
DQA1*06	3	18%	15129	17613	7920	9398	28314	
DR1403	3	18%	2331	1900	649	983	2388	
DQA1*01	2	12%	25900	25899	1873	24027	27772	
DQA1*03	2	12%	14630	14630	580	14050	15210	
DR53	2	12%	645	645	118	527	763	
DQ3	1	6%	15209	15209	-	15209	15209	
DQA1*05	1	6%	15209	15209	-	15209	15209	
DQA1*04	1	6%	10739	10739	-	10739	10739	
DR1404	1	6%	1346	1346	-	1346	1346	

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 16a. Individual laboratory results for Serum #165 - class I by One Lambda Single Antigen

	**** Serum 165 ****																								
Ctr	A2	A23	A24	A25	A32	A33	A34	A68	A69	B37	B38	B44	B47	B49	B51	B52	B53	B57	B58	B59	B63	B77	A26	B13	
230	12026	28215	27723	19037	25365	6121	7436	16571	14032	18220	23847	16706	14671	23067	19067	13980	21532	25372	23734	20974	23658	20195	5357	19470	
615	9127	21299	21388	13798	19472	5061	5190	12503	10580	13211	18186	14502	11291	17009	14115	10308	15696	19402	17382	15241	17493	14844	3644	16331	
792	7169	17416	18050	11499	15517	3797	3949	10618	8173	10454	15092	11980	8643	13617	11717	8396	12678	16238	14133	12796	14114	12051	2668	12309	
1426	9234	22209	21363	14648	19483	4964	5007	12193	10560	13829	19098	12883	12449	17061	15317	11650	16774	19328	18492	16389	17944	15442	4178	15539	
2400	8072	20106	20066	13563	18425	3880	4370	11264	9884	12127	16874	11316	9697	15236	13198	8624	13985	17958	15707	14653	16170	13545	3090	13015	
3224	11321	23184	23145	15922	21319	6018	6116	15651	12628	13403	20376	16939	12815	18606	16315	11438	17636	21546	18734	17322	18775	16518	4090	19707	
3632	5711	18276	18127	11697	16262	2730	3074	8616	6488	9177	14134	10733	6885	12658	10964	6891	11885	16332	13750	11933	12862	10828		12629	
3753	9873	24308	22780	14553	21686	4397	5300	13181	11344	13463	20620	12581	11104	17548	14832	10272	17611	21886	19182	16396	18546	15583	3649	15536	
5214	12420	22994	23012	17547	22691	6361	7640	16372	14308	16639	22207	15967	14420	21344	18256	13531	20243	22284	21330	19788	21237	19096	5227	17920	
8001	10300	24980	24883	16426	22722	5452	5475	14662	11880	15158	22144	17300	13325	20268	17149	12221	19251	23361	21220	18501	19854	17796	3900	19005	
8050	9159	18273	14405	11840	19391	2909	3768	11992	9084	14092	19826	11987	10490	17731	14119	9461	16704	20886	18863	16257	17855	15470	2149	14229	
8083	12081	26329	25904	17925	23500	5891	6273	16226	13489	16208	23513	18223	13864	20902	17793	12663	20027	24798	21778	19030	21653	18751	4367	20756	
8103	10640	15383	14602	11471	14871	4326	4443	10946	8911	10485	14824	12349	9844	14672	13542	11803	14539	16686	15506	15020	14523	14183	2900	14310	
8111	9000	16800	14600	12000	18000	3000	3700	11400	9000	13400	18500	12000	10500	16500	13600	9700	14800	19000	17500	15400	17100	13700	2300		
Avg	9724	21412	20718	14423	19907	4636	5124	13014	10740	13562	19232	13962	11428	17587	14999	10781	16669	20363	18379	16407	17985	15572	3655	16212	
Std Dev.S	1935	3852	4283	2602	3137	1251	1377	2495	2336	2506	3166	2554	2283	3029	2440	2048	2925	3011	2970	2555	3015	2700	1015	2901	
MFI %CV	20%	18%	21%	18%	16%	27%	27%	19%	22%	18%	16%	18%	20%	17%	16%	19%	18%	15%	16%	16%	17%	17%	28%	18%	

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 16b. Individual laboratory results for Serum #165 - class I by Lifecodes-Immucor Single Antigen

	**** Serum 165 ****																								
Ctr	A2	A23	A24	A25	A32	A33	A34	A68	A69	B37	B38	B44	B47	B49	B51	B52	B53	B57	B58	B59	B63	B77	A26	B13	
3808	2132	8233	7389	4217	7200	1326	1346	3071	2063	4406	7966	4802	3672	5416	4254	3466	7032	8309	6816	6137	6580	6770	1120	4867	
8029	1256	4180	4298	2116	4054	719	672	1981	1190	2088	3976	2651	1913	3047	1994	1597	3478	4351	3282	2625	3897	3557	568	2316	
Avg	1694	6207	5844	3167	5627	1023	1009	2526	1627	3247	5971	3727	2793	4232	3124	2532	5255	6330	5049	4381	5239	5164	844	3592	
Std Dev.S	619	2866	2186	1486	2225	429	477	771	617	1639	2821	1521	1244	1675	1598	1322	2513	2799	2499	2483	1897	2272	390	1804	
MFI %CV	37%	46%	37%	47%	40%	42%	47%	31%	38%	50%	47%	41%	45%	40%	51%	52%	48%	44%	49%	57%	36%	44%	46%	50%	

Table 16a. Individual laboratory results for Serum #165 - class I by One Lambda Single Antigen, cont.

	**** Serum 165 ****													
Ctr	Cw2	A66	Cw18	Cw6	B27	Bw4	B2705	Cw15	Cw5	A203	A2403	A6601	Other	
230	9778				18373	20136							B62	One Lambda
615	7129	3115	3802	3730	15866		15866	1500	1609					One Lambda
792	5802	2264	2903	3140	12895									OneLambda
1426	7289	2941	3911	4291	16672		16672	1862	2147					One Lambda
2400	7238	2805	3619	4062	14492	13703								
3224	7110	3238	4065	3916		21546	17988	1762	1771					One Lambda
3632	3903						12070			6024	17272		A210	One Lambda
3753	5772	2296	3363	2644	16802	16147								One Lambda
5214	8892		5365	5486		18879	20010	2661	2652			4767	A6602	One Lambda
8001	7708	3336	4374	4327		23361	19176	1678	1695					One Lambda
8050	7605	1619	4267	3673	16430			1247	1728					One Lambda
8083	8956	3943	4725	4377	20040	24798								One Lambda
8103	10509	2104	4295	4976	12992		12992	2980	3589	10640	14590	1977	Cw4,B15,Cw7,Cw14 >	One Lambda
8111	7000	1600	4000	4000		12000		1600	2000					One Lambda
Avg	7478	2660	4057	4052	16062	18821	16396	1911	2149	8332	15931	3372		
Std Dev.S														
	1705	745	636	753	2350	4557	3000	597	673	3264	1896	1973		
MFI %CV	23%	28%	16%	19%	15%	24%	18%	31%	31%	39%	12%	59%		

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 16b. Individual laboratory results for Serum #165 - class I by Lifecodes-Immucor Single Antigen, cont.

	**** Serum 165 ****													
Ctr	Cw2	A66	Cw18	Cw6	B27	Bw4	B2705	Cw15	Cw5	A203	A2403	A6601	Other	
3808		844			5114	8309	5991			1727	8094	844		Immucor
8029					3296	4632				1298	4632			LIFECODES
Avg	-	-	-	-	4205	6471	-	-	-	1513	6363	-		
Std Dev.S	-	-	-	-	1286	2600	-	-	-	303	2448	-		
MFI %CV	-	-	-	-	31%	40%	-	-	-	20%	38%	-		

Table 17a. Individual laboratory results for Serum #166 - class I by One Lambda Single Antigen

	**** Serum 166 ****																											
Ctr	A1	A25	A34	A36	A43	A80	B18	B73	A11	A23	A26	B64	A33	B37	B76	Cw18	A66	Cw6	Cw7	A24	B65	B51	B78	B8	Cw4	A6601	A68	
230	13840	7887	7552	10425	7356	10573	6718	7609	9343	4145	767	4013		4835			6641			4729								
615	10945	5020	5059	6411	4432	6429	4638	4605	5838	2728	4534	2457	2276	2823	2136	4403	4047	3239	2586	3010	1899	1833	1347	1181	1733	1020		
792	10104	4467	4581	6100	3908	6030	4906	4501	5452	2832	4076	2814	2460	3207	2321	3930	3558	2829	2117	3107	2140	1991	1549					
1426	10108	4748	4235	5918	4251	6117	3066	4922	6232	2419	4654	1296	1157	4539	2666	4259	3599	3340	2522	2553		1419	1065	1095	1374			
2400	10360	4626	4167	6042	4296	6020	4204	4311	4984	2805	4403	2628	2530	3756	2504	3715	3953	2936	2504	3124								
3224	12528	4618	4980	6873	4126	6284	4998	4381	6224	3366	4242	2636	2435	1780	1614	4233	3433	2739	2072		1850		1314	1151	1169		1107	
3632	6790	3118	3027	3956	2688	4022	2197	2935		2847			2038		2239												2411	
3753	15484	7028	5867	7447	5715	8623	6280	6187	7822	4265	5485	3518	2341	3492	4500	5803	4296	3747	3017	4239	2839	2647	1969	1434				
5214	14891	7313	7317	9630	6364	9513	5386	7050	9425	3478	7010	2838	2550	2879	2202	6967		4829	3664		2016				2296	6316		
8001	11766	6554	5350	6865	4653	6722	5338	5183	6084	4319	4983	2877	2814	3373	2435	4833	4195	3250	2456	3793	2197	2889	1551	1258	1360		1998	
8050	14908	8766	6285	8724	6780	11170	6397	8212	9612	3268	6908	3044	2473	7285	4640	7763	4915	5465	4596	3265	2151	2850	2116	1544	2926			
8083	17518	8629	8617	11348	7327	11309	8636	7880	10311	5739	7722	5147	5351	6309	4813	7764	7070	5087	4622	6200	3996	4015	2733	2737	2457		2001	
8103	16901	11043	10096	11921	9505	14846	9325	10804	13358	6084		5222	5377	13623	7584	10141	7868	8408	9424	4878	5103	6171	4085	2901	7625	7868		
8111	11000	5500	4600	6200	4800	7400	4700	5400	6300	2800	4900	2500	1000	4300	3100	4900		3700	2900		1900	1000	1600	1400	1800	3800		
Avg	12653	6380	5838	7704	5443	8218	5485	5999	7768	3711	4810	3153	2730	4589	3376	5458	4870	4131	3540	3890	2609	2757	1933	1633	2527	5099	1532	
Std Dev.S																												
MFI %CV	3042	2181	1944	2340	1816	2923	1920	2084	2465	1156	1815	1093	1349	3009	1705	2150	1571	1626	2045	1121	1092	1565	894	689	1997	2454	542	
Blue = DSA against cell #163 only Gold = DSA against cell #164 only Green = DSA against cell #163 and #164																												

Table 17b. Individual laboratory results for Serum #166 - class I by Lifecodes-Immucor Single Antigen

	**** Serum 166 ****																										
Center	A1	A25	A34	A36	A43	A80	B18	B73	A11	A23	A26	B64	A33	B37	B76	Cw18	A66	Cw6	Cw7	A24	B65	B51	B78	B8	Cw4	A6601	A68
3808	2918	1345	947	1377	971	1302	1040	1017	1958	714	990	716	598		815		598			1004	823	590			598		
8029	5342	2865	2348	3039	2375	2717	2114	2343	3354	1793	2527	1410	1209		1969	1320	1878	1508	1063	2144	1347	1201	1049	747	526		662
Avg	4130	2105	1648	2208	1673	2010	1577	1680	2656	1254	1759	1063	904	-	1392	-	1238	-	-	1574	1085	896	-	-	-	-	-
Std Dev.S	1714	1075	991	1175	993	1001	759	938	987	763	1087	491	432	-	816	-	905	-	-	806	371	432	-	-	-	-	-
MFI %CV	42%	51%	60%	53%	59%	50%	48%	56%	37%	61%	62%	46%	48%	-	59%	-	73%	-	-	51%	34%	48%	-	-	-	-	-

Table 17a. Individual laboratory results for Serum #166 - class I by One Lambda Single Antigen, cont.

**** Serum 166 ****				
Ctr	A1101	A1102	B54	Other
230				One Lambda
615		542		One Lambda
792				One Lambda
1426			A6602	One Lambda
2400				
3224				One Lambda
3632	3681	3716		One Lambda
3753				One Lambda
5214				One Lambda
8001			A32,B77,B59	One Lambda
8050				One Lambda
8083				One Lambda
8103	11104	13358	1913	B15,A29,B14,B8101 >
8111				One Lambda
Avg	7393	8537	1228	
Std Dev.S	5249	6818	969	
MFI %CV	71%	80%	79%	

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 17b. Individual laboratory results for Serum #166 - class I by Lifecodes-Immucor Single Antigen, cont.

**** Serum 166 ****				
Center	A1101	A1102	B54	Other
3808	1361	1958		Immucor
8029			522	Bw4,Bw6,B3901
Avg	-	-	-	
Std Dev.S	-	-	-	
MFI %CV	-	-	-	

Table 18a. Individual laboratory results for Serum #167 - class I by One Lambda Single Antigen

	**** Serum 167 ****																										
Ctr	B18	B35	B37	B38	B41	B42	B53	B54	B55	B59	B64	B65	B67	B71	B75	B8	B56	B39	B49	B51	B77	B27	B50	B57	B44	B78	B45
230	12922	8962	7666	20450	8233	13098	5489	16902	15692	8622	9591	6059	21402	9393	6363	17229	4039	20735		4380							
615	7978	4565	3713	15373	5836	7888	3031	10766	9032	5054	5229	3278	16462	3521	4220	10782	2400	16135	1701	3416	1811	1430	1126	1348	982	1042	1025
792	8350	5176	4426	15733	6144	8458	3279	10797	9813	5636	5738	3788	16742	3962	4844	11187	2963	16606	2191	4008	2229	1778	1573	1796			
1426	8696	4980	5041	15361	7125	8497	2970	11350	9559	5266	5571	3480	17662	4191	3175	11525	2996	17197	2318	2407	2117	1409	1446	1333	1259	1525	1274
2400	8928	5505	5203	15936	6807	9131	3516	12056	9906	6133	5947	4039	16610	4481	3648	12196	3535	16828	2128	4463	2551						
3224	10061	6303	4135	18335	7179	10434	4174	13116	11814	6623	7067	4193	19929	4500	5838	13672	3576	19513	2654	4506	2797	1992	1664	2011	1569	1600	1156
3632	7744	4917	4960	15407	5935	9395	2890	12035	10683	5901	5476	3298	16876	4381	4408	11980	3392		2113	3927							
3753	10126	6310	4295	21174	6800	9776	4002	14172	11148	6306	6794	4326	23045	4221	3974	14206	3270	22606	2302	2728	2400	1897	1658	1921	1469	1246	1508
5214	13870	8967	7700	21522	10197	13457	6088	16893	15876	9270	9664	6082	22164	7019	6191	17052	5846	22346	4272	4799	4158	3414	2925	3136	2075	2796	2640
8001	11466	6962	5675	21350	8367	11326	4509	14990	13381	7591	7808	5038	22406	5421	6615	15164	4117	21630	2938	5322	3091	2267	1940	2420	1677	1738	1700
8050	11002	6331	5966	20532	7663	10596	3683	14302	12279	6665	7364	4552	21380	4603	3928	14278	3334	21358	2338	2865	2279	1616	1619	1322	1180	1419	1262
8083	11850	6840	5872	18815	8877	11424	4410	15665	13288	7383	7528	5190	21963	5670	6207	14641	4331	20176	3093	5623	3500	2160	2008				
8103	11894	7158	7417	20379	9230	11184	6413	15013	12646	10868	9872	8780	21307	6176	7316	14742	7213	20570	5352	7858	4451	2943	4391	3237	2950	3640	2685
8111	10200	6400	6400	17900	7600	10000	4000	13000	11000	6600	7400	4700	19700	5100	4200	13200	3800	19400	2900	3200	2700	2000	2000	1900	1000	1900	1750
Avg	10363	6384	5605	18448	7571	10333	4175	13647	11866	6994	7218	4772	19832	5189	5066	13704	3915	19623	2792	4250	2840	2082	2032	2042	1573	1878	1667
Std Dev.S																											
MFI %CV	18%	21%	23%	13%	17%	16%	27%	15%	18%	23%	22%	31%	12%	30%	26%	15%	32%	11%	36%	33%	29%	30%	45%	34%	40%	44%	37%

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 18b. Individual laboratory results for Serum #167 - class I by Lifecodes-Immucor Single Antigen

	**** Serum 167 ****																										
Center	B18	B35	B37	B38	B41	B42	B53	B54	B55	B59	B64	B65	B67	B71	B75	B8	B56	B39	B49	B51	B77	B27	B50	B57	B44	B78	B45
3808	1295	654	933	7340	786	1080	658	2917	1595	1571	1042	1004	6192	854	685	2478		7186									
8029	2468	1359	1869	8740	1854	2075	1333	4107	3374	2065	1927	1444	7934	1955	1375	3800	789		824		913	695	634	690	685	537	
Avg	1882	1007	1401	8040	1320	1578	996	3512	2485	1818	1485	1224	7063	1405	1030	3139	-	-	-	-	-	-	-	-	-	-	
Std Dev.S																											
MFI %CV	44%	50%	47%	12%	57%	45%	48%	24%	51%	19%	42%	25%	17%	55%	47%	30%	-	-	-	-	-	-	-	-	-	-	

Table 18a. Individual laboratory results for Serum #167 - class I by One Lambda Single Antigen, cont.

	**** Serum 167 ****											
Ctr	B72	B62	B47	B58	B82	B3901	B52	B63	Bw4	Cw15	Other	
230												One Lambda
615	825	671	751	682	731		538	511		640		One Lambda
792												One Lambda
1426	1186	1041			1059			1003		1040		One Lambda
2400												
3224	1260	1070	1080	1122	947		873		18335			One Lambda
3632						16859					B3902	One Lambda
3753			1295	1149								One Lambda
5214	2828	2327	2012					4539				One Lambda
8001	1477	1186	1390	1346	1211							One Lambda
8050	1116											One Lambda
8083												One Lambda
8103	3106	2181	2164	1874	3073	20570	2403	1999		2653	Cw4,B15,B13,B14 >	One Lambda
8111	1600	1000						1000			B15	One Lambda
Avg	1675	1354	1449	1235	1404	18715	1271	1171	7958	1444		
Std Dev.S												
	834	636	544	432	949	2624	994	758	9159	1066		
MFI %CV	50%	47%	38%	35%	68%	14%	78%	65%	115%	74%		

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 18b. Individual laboratory results for Serum #167 - class I by Lifecodes-Immucor Single Antigen, cont.

	**** Serum 167 ****											
Center	B72	B62	B47	B58	B82	B3901	B52	B63	Bw4	Cw15	Other	
3808						7186						Immucor
8029						9661	515	536	8740		Bw6,B2708	Lifecodes
Avg	-	-	-	-	-	-	-	-	-	-		
Std Dev.S	-	-	-	-	-	-	-	-	-	-		
MFI %CV	-	-	-	-	-	-	-	-	-	-		

Table 19a. Individual laboratory results for Serum #168 - class I by One Lambda Single Antigen

	**** Serum 168 ****																										
Ctr	A2	A68	A69	B13	B27	B42	B47	B55	B57	B58	B60	B61	B67	B7	B73	B81	B54	B56	B63	B82	B48	A32	A66	A6602	A25	A24	
230	12861	8939	9956	11877	17732	9640	12891	8127	6761	5578	18384	17016	9936	20660	10070	20554	4975	6525	5142	4236	12582		5944				
615	7744	4768	5431	8053	10965	4935	7666	4083	3402	2642	11214	11076	5108	13476	5518	12958	2465	3175	2234	2153	7402	1345	3043	3043	1096	1170	
792	7887	5360	5327	7974	10963	5454	7323	4501	3947	2932	10480	10559	5581	13170	5652	12529	2697	3746	2658	2457	7036	1612	2765				
1426	5727	3958	4119	5547	10028	5582	6181	4741	3851	3027	9832	8870	6210	11976	6969	12232	2965	3920	2799	2433	6627	1044	3166	3166			
2400	7505	5004	6084	7061	10682	5371	7301	4141	3687	2976	11552	10364	5307	13441	6488	13021	2739	3280	2424	2555	8338		3792				
3224	11769	8098	8095	9688	13876	7949	8996	6407	5539	4452	13710	13045	8100	16345	7192	15459	4141	5149	3211	3275	8736	2430		3996	1869	2139	
3632	6974	4455	4441	7547	10790	4665	5606	3683	4124	2810	9092	9382	4920	12261	6331	10923	2111	3050	2351		5624		3730				
3753	10244	6882	7586	8564	13449	7637	9511	6135	5168	4181	14138	13037	7964	17582	6914	16966	3810	4752	3875	3088	9067	2059		3868	1497	1715	
5214	12352	8627	9373	10503	15693	9157	11131	7792	6144	5380	17070	15303	9366	19718	8777	18586	4734	6240	4539	3835	11654	2705		5562	2000	2862	
8001	11970	8228	8340	11534	15074	8527	10552	6799	6019	4877	15567	14745	8546	17668	7684	17213	4391	5530	4198	3854	10029	2791		4055	2288	2015	
8050	7582	5033	5205	7475	12558	6799	8589	5457	4073	3402	13472	12116	6932	16317	7470	15346	3185	4204	3082	2720	8713	1394	2230				
8083	11879	7976	8038	11620	14989	8551	9881	6448	5671	4618	14835	14107	8263	17691	8344	16393	3914	5157	3919	3395	9992	2065	5045		1912	2375	
8103	7589	5300	5972	7678	11202	5765	8237	4317	4526	3838	10079	10503	5897	13074	6502	11641	3092	4312	3082	3401	6849	1729	3368	3368	1720	1430	
8111	8000	5400	5500	7200	12300	6700	8800	5800	4400	3800	12700	12000	7150	15500	7350	15000	3700	4600	3500	3250	8400	1850		2800	1350		
Avg	9292	6288	6676	8737	12879	6909	8762	5602	4808	3894	13009	12295	7091	15634	7233	14916	3494	4546	3358	3127	8646	1911	3669	3732	1717	1958	
Std Dev.S	2420	1747	1856	1972	2320	1664	1962	1415	1060	978	2816	2378	1638	2800	1223	2834	876	1091	878	634	1945	564	1237	817	385	575	
MFI %CV	26%	28%	28%	23%	18%	24%	22%	25%	22%	25%	22%	19%	23%	18%	17%	19%	25%	24%	26%	20%	22%	30%	34%	22%	22%	29%	

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 19b. Individual laboratory results for Serum #168 - class I by Lifecodes-Immucor Single Antigen

	**** Serum 168 ****																									
Center	A2	A68	A69	B13	B27	B42	B47	B55	B57	B58	B60	B61	B67	B7	B73	B81	B54	B56	B63	B82	B48	A32	A66	A6602	A25	A24
3808	2135	1639	1410	1579	1082	1194	2782	1049	1039	843	2923	2634	1408	4595	1862	3729	628	820	778	781			997	997		
8029	1552	1149	1003	1065	2774	773	1921	717	688	548	1780	1629	918	3210	1385	2349			503				918			
Avg	1844	1394	1207	1322	1928	984	2352	883	864	696	2352	2132	1163	3903	1624	3039	-	-	-	642	-	-	958	-	-	-
Std Dev.S	412	346	288	363	1196	298	609	235	248	209	808	711	346	979	337	976	-	-	-	197	-	-	56	-	-	-
MFI %CV	22%	25%	24%	27%	62%	30%	26%	27%	29%	30%	34%	33%	30%	25%	21%	32%	-	-	-	31%	-	-	6%	-	-	-

Table 19a. Individual laboratory results for Serum #168 - class I by One Lambda Single Antigen, cont.

	**** Serum 168 ****				
Ctr	A30	A203	B2708	Other	
230					One Lambda
615	1151			B45,A23	One Lambda
792					OneLambda
1426					One Lambda
2400					
3224			A23		One Lambda
3632				A210	One Lambda
3753	1602			A1	One Lambda
5214					One Lambda
8001	2479				One Lambda
8050	1044				One Lambda
8083	1725				One Lambda
8103	1264	7547	11202	Cw4,A11,B40,B15 >	One Lambda
8111	1000				One Lambda
Avg	1466	-	-		
Std Dev.S					
	524	-	-		
MFI					
%CV	36%	-	-		

Blue = DSA against cell #163 only

Gold = DSA against cell #164 only

Green = DSA against cell #163 and #164

Table 19b. Individual laboratory results for Serum #168 - class I by Lifecodes-Immucor Single Antigen, cont.

	**** Serum 168 ****				
Center	A30	A203	B2708	Other	
3808		2024	4673	B703,B8101,B2705	Immucor
8029		1520	3144	B703,Bw4,Bw6	LIFECODES
Avg	-	1772	3909		
Std Dev.S					
	-	356	1081		
MFI					
%CV	-	20%	28%		

Table 20a. Individual laboratory results for Serum #165 - class II by One Lambda Single Antigen

	**** Serum 165 ****																									
Ctr	DPw6	DR1	DR103	DR11	DR15	DR16	DR51	DR8	DR9	DP14	DP17	DP9	DPw3	DR10	DP18	DP20	DP28	DPw2	DR12	DP402	DP10	DPw4	Other			
230	9054	4547	5223	5562	11714	14807	15115	6697	8772					4971							5681			One Lambda		
615	7935	4114	4367	4866	9431	15239	15464	6403	7136	7046	7159	7154	7635	4070	3891	6965	4351	4400	5487	3947	3094	3947		One Lambda		
792	5719	3112	3353	3558	7416	12481	12218	5068	5537	4915	5055	5514	5676	3113	2815	5123	3059	3140	4221	2587	2231			OneLambda		
1426	4840	2681	3052	3360	6728	9204	9160	4455	5347	4688	4722	5160	4910	2509	2387	4737	2826	3130	3706	2711	2111	2711	DPw1	One Lambda		
2400	5081	2610	2842	2735	6893	8871	9958	4509	4968	4189	4361	4252	4503	2771	2218	4196	2325	2526	3624	2231						
3224	5647	2871	3043	3296	6315	12422	11479	4527	4903	4907	5041	5135	5496	2932	2532	4941	2981	2727		2475	1955			One Lambda		
3632	5052	2065	2168	3135	5030	10131	10711	4144	3991	3884	4029	4152	4619	2215	2183	3934	2512	2503	3272	2325	1770			One Lambda		
3753	2855	1183	1090	1499	4006	5732	5567	2803	2518	2921	2472	3037	2953			3099			2246					One Lambda		
5214	7724	3928	4412	4669	9864	12528	12879	5638	7061	7302	7213	7777	7546	4268	3630	7060	4194	4505		3838	2958			One Lambda		
8001	6751	3479	3738	3895	8368	14793	15332	5678	6465	5895	5972	6187	6614	3679	3102	5976	3516	3428	4608	2964	2441			One Lambda		
8050	5742	3399	4159	3246	9049	12343	12386	6622	6052	5664	5649	5949	6011	3753	1648	5579	2244	2204	5507	2014	1374			One Lambda		
8083	8009	3679	4111	4745	9428	15673	15464	5831	6885	6719	7013	7282	7656	3878	3613	6521	4011	4133	5021		2653	3510		One Lambda		
8103	2673	1827	1822	2515	4359	7259	6989	3902	3887	2565	2231	2356	2555	3300		2619			3466				DR2	One Lambda		
8111	4600	3000	3600	2900	7500	10000	10400	5800	5200	4600	4600	5000	4700	3300	1500	4600	2000	2000		1400	1500			One Lambda		
Avg	5834	3035	3356	3570	7579	11535	11652	5148	5623	5023	5040	5304	5452	3443	2684	5027	3093	3154	4258	2649	2209	3389				
Std Dev.S																										
MFI %CV	1892	927	1123	1085	2226	3092	3129	1140	1600	1475	1597	1610	1654	763	804	1385	821	874	1103	780	583	627				
32%	31%	33%	30%	29%	27%	27%	22%	28%	29%	32%	30%	30%	22%	30%	28%	27%	28%	26%	29%	26%	18%					

Blue = DSA against cell #157 only

Gold = DSA against cell #158 only

Green = DSA against cell #157 and #158

Table 20b. Individual laboratory results for Serum #165 - class II by Lifecodes-Immucor Single Antigen

	**** Serum 165 ****																									
Ctr	DPw6	DR1	DR103	DR11	DR15	DR16	DR51	DR8	DR9	DP14	DP17	DP9	DPw3	DR10	DP18	DP20	DP28	DPw2	DR12	DP402	DP10	DPw4	Other			
3808	2260	1220	1392	2643	3726	7170	7144	3111	1819	1996	2119	2053	2394	1060	966		1331	1080	2152	1162		DR13	Immucor			
8029	1841	1057	1146	2494	2673	4380	5152	2027	1528	1442	1431	1621	1806	772	783		1002	851	1368			1020	DR13	Lifecodes		
Avg	2051	1139	1269	2569	3200	5775	6148	2569	1674	1719	1775	1837	2100	916	875	-	1167	966	1760	-	-	-				
Std Dev.S																										
296	115	174	105	745	1973	1409	767	206	392	486	305	416	204	129	-	233	162	554	-	-	-	-				
14%	10%	14%	4%	23%	34%	23%	30%	12%	23%	27%	17%	20%	22%	15%	-	20%	17%	31%	-	-	-					

Table 21a. Individual laboratory results for Serum #166 - class II by One Lambda Single Antigen

	**** Serum 166 ****																					
	Ctr	DP13	DP19	DPw1	DPw3	DPw6	DQ2	DQ4	DQ7	DQ8	DQ9	DP11	DPw5	DP14	DP17	DP9	DP20	DP10	DP18	DP15	DQ5	DR7
230	14870	15164	17834	17633	17254	16451	7523	16855	5498	5562	17308	18379								3820		
615	13728	11516	14112	14313	14366	24008	10981	19311	6038	5420	15068	14869	13819	14627	15247	11837	13017	11339		2475	2567	
792	11780	9910	11980	12391	12375	21878	9729	17048	5445	5066	13702	12890	11746	12471	13134	9754	10850	9770	4628	3215	2437	
1426	5397	4851	7617	6484	6027	7629	3059	9903	2463	2569	7098	7272	6155	7925	7497	6578	5935	5481	2404	2213		
2400	11816	10980	13744	12912	13548	9268	4892	4517	4971	4956	13256	14227	13535	14369	14710	11455	12646	6714	5558	3623	2904	
3224	11466	9657	12355	12739	12546	24122	9470	19211	4983	4360	13315	13316	11762	12912	13578	9805	11304	9827			1953	
3632	9776	8301	10330	10596	11001	22161	7754	16987	4082	3494	11767	11300	10526	11591	11401	8267	9919					
3753	4881	4943	6376	5264	5575	6304	2539	8277	2034	1948	5793	6349	6004	5924	6507	4747	5452			1366		
5214	12521	12577	15109	15056	14955	12946	6288	4501	4607	4334	14669	16047	15636	16380	16856	13086	14176		4609		2244	
8001	13783	11517	14273	15227	14742	26858	11552	21621	6005	5136	15758	15827	14243	14926	15641	11398	13723	11068	4740	2216	2345	
8050	14930	15739	18564	17170	17564	17745	9476	17669	6970	7120	16997	18835	17908	18762	19738	16005	17036	6317	7396	2728	3658	
8083	10255	13180	16093	14473	16317	28118	11962	22369	6923	6194	12297					12452		12614				
8103	5479	4397	4546	4816	4735	11933	2001	9083	3216	3068		4726	4426	3980	4566	3706	3784		2136	2279		
8111	10800	11200	13500	12200	12400	13000	6800	13500	5200	5300	12700	13800	13100	13700	14400	11400	12300	4800	5600		2900	
Avg	10820	10281	12602	12234	12386	17316	7430	14347	4888	4609	13056	12911	11572	12297	12773	10038	10845	8659	4634	2659	2626	
Std Dev.S																						
MFI %CV	3401	3603	4139	4112	4213	7289	3334	6049	1504	1427	3400	4419	4130	4337	4503	3452	3953	2861	1717	778	526	
	31%	35%	33%	34%	34%	42%	45%	42%	31%	31%	26%	34%	36%	35%	35%	34%	36%	33%	37%	29%	20%	

Blue = DSA against cell #157 only

Gold = DSA against cell #158 only

Green = DSA against cell #157 and #158

Table 21b. Individual laboratory results for Serum #166 - class II by Lifecodes-Immucor Single Antigen

	**** Serum 166 ****																					
	Ctr	DP13	DP19	DPw1	DPw3	DPw6	DQ2	DQ4	DQ7	DQ8	DQ9	DP11	DPw5	DP14	DP17	DP9	DP20	DP10	DP18	DP15	DQ5	DR7
3808	8580	8454	8729	7194	6805	6132	6552	7713	2427	5054	8901	9923	8970	8430	8964			1147	5430		1096	
8029	12027	12398	12146	10780	10819	8938	8686	10333	4403	7385	12393	13151	12290	10376	11774			3236	9028	1134	1908	
Avg	10304	10426	10438	8987	8812	7535	7619	9023	3415	6220	10647	11537	10630	9403	10369	-	-	2192	7229	-	1502	
Std Dev.S																						
MFI %CV	2437	2789	2416	2536	2838	1984	1509	1853	1397	1648	2469	2283	2348	1376	1987	-	-	1477	2544	-	574	
	24%	27%	23%	28%	32%	26%	20%	21%	41%	27%	23%	20%	22%	15%	19%	-	-	67%	35%	-	38%	

Table 21a. Individual laboratory results for Serum #166 - class II by One Lambda Single Antigen, cont.

Ctr	**** Serum 166 ****										
	DPA1*02	DPA1*04	DQA1*05	DQA1*06	DQ6	DQA1*04	DP28	DQA1*02	DQA1*03	Other	
230	16681		26871	24818		14630		6871	6405	DPA1*03,DP85	One Lambda
615	15247	7076	24008	19311	2293	13368					One Lambda
792					2156		6345				One Lambda
1426		3760			1444						One Lambda
2400			21620	19441	2468	12248	7267				
3224	13578	6320	24122	18771		11511		7662	8897	DPA1*03	One Lambda
3632	11401									DP26,DP31,DP30,DP85 >	One Lambda
3753	4510	2512	10670	10323		5019		1446			One Lambda
5214	11438	7397	21504	20659							One Lambda
8001		7224			2065						One Lambda
8050					4334		10195				One Lambda
8083	17444						8677				One Lambda
8103	5479	2158	11933	8685		5420		3818	3482	DQ3,DPA1*03	One Lambda
8111											One Lambda
Avg	11972	5207	20104	17430	2460	10366	8121	4949	6261		
Std Dev.S											
	4838	2318	6288	5793	982	4126	1683	2864	2710		
MFI %CV	40%	45%	31%	33%	40%	40%	21%	58%	43%		

Blue = DSA against cell #157 only

Gold = DSA against cell #158 only

Green = DSA against cell #157 and #158

Table 21b. Individual laboratory results for Serum #166 - class II by Lifecodes-Immucor Single Antigen, cont.

Ctr	**** Serum 166 ****										
	DPA1*02	DPA1*04	DQA1*05	DQA1*06	DQ6	DQA1*04	DP28	DQA1*02	DQA1*03	Other	
3808	9923	7590	7713	4161		5093	5586	3879	3299		Immucor
8029					2719		9943			DR9,DR15,DR16,DPW4	LIFECODES
Avg	-	-	-	-	-	-	7765	-	-		
Std Dev.S	-	-	-	-	-	-	3081	-	-		
MFI %CV	-	-	-	-	-	-	40%	-	-		

Table 22a. Individual laboratory results for Serum #167 - class II by One Lambda Single Antigen

	**** Serum 167 ****			
Ctr	DQ7	DQA1*05	Other	
230	NEG			One Lambda
615	NEG			One Lambda
792	NEG			One Lambda
1426	NEG			One Lambda
2400	NEG			
3224	NEG			One Lambda
3632	NEG			One Lambda
3753	NEG			One Lambda
5214	NEG			One Lambda
8001		1044		One Lambda
8050	NEG			One Lambda
8083	NEG			One Lambda
8103	NEG			One Lambda
8111		300		One Lambda
Avg	-	-		
Std Dev.S	-	-		
MFI				
%CV	-	-		

Blue = DSA against cell #157 only**Gold** = DSA against cell #158 only**Green** = DSA against cell #157 and #158**Table 22b. Individual laboratory results for Serum #167 - class II by Lifecodes-Immucor Single Antigen**

	**** Serum 167 ****			
Ctr	DQ7	DQA1*05	Other	
3808	NEG			Immucor
8029	NEG			Lifecodes
Avg	-	-	-	
Std Dev.S	-	-	-	
MFI				
%CV	-	-	-	-

Table 23a. Individual laboratory results for Serum #168 - class II by One Lambda Single Antigen

	**** Serum 168 ****																				Other		
Ctrl	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR1	DR103	DR11	DR12	DR13	DR15	DR16	DR4	DR51	DR8	DR9	DR14	DR10	DPw5	DR7	Other	
230	24499	25352	28724	23140	25466	25308	7949	8650	7236	6724	8447	13134	11514	4863	12453	4636	5272				DQA1*01,DQA1*06	One Lambda	
615	21812	23132	24080	22664	22368	21062	6348	6763	6326	5287	7104	10388	8891	5153	11280	4034	5040	5142	2871	2381	1398	DR53	One Lambda
792	18405	20514	21779	19509	19526	18492	4517	4946	4414	3831	5096	7896	6310	3840	8458	2886	3524	3415	1986	1772			OneLambda
1426	19092	22293	23651	18226	19038	19576	4601	5233	4286	4000	4958	7098	5521	3453	7249	2911	3449	2449	2325	1079			One Lambda
2400	17755	20445	21576	16414	18330	18400	4037	4347	3543	3152	4371	6937	5974	2965	7016	2453	3079	3038					
3224	20099	23725	24027	22928	22064	21997	5509	5497	4825	4168	6157	8858	6975	4356	8371	3043	3935	4307	2365	1332		DQA1*01	One Lambda
3632	22434	22974	23331	17913	21711	21060	4947	5483	4571	3913	5523	7910	6615	4047	8376	3034	4148	3811	2353			DR1403	One Lambda
3753	21083	25888	26398	20683	22863	22778	4951	5532	4594	4182	5924	9122	7307	3640	9100	3212	3252	2431	2129				One Lambda
5214	21725	23087	23240	19931	22235	21865	8135	8738	7202	6778	9152	12517	11029	6196	12967	5377	5137	4019	4074	2131			One Lambda
8001	24444	25960	27008	25042	25561	25026	5815	5886	5695	4818	6820	9750	8415	5129	10071	3599	4231	4605	2634	1822	1136		One Lambda
8050	22664	26266	27586	21011	23299	23070	5506	6549	4765	4408	6297	9245	7666	3895	9850	3225	3658	2485	1968	2072			One Lambda
8083	26142	30121	29715	28224	27450	25862	7039	7656	7313	6629	7785	12000	10411	5783	12363	4629	5424	5516	3189	2757	1670		One Lambda
8103	15210	17019	18102	15129	15452	13069															DQ3,DQA1*03,DQA1*05+	One Lambda	
8111	20100	23200	23800	19100	20400	20200	5100	5800	4900	4500	5800	8700	7350	3900	9100	3400	3800	2500	2300	2200	1200		One Lambda
Avg	21105	23570	24501	20708	21840	21269	5727	6237	5359	4799	6418	9504	7998	4402	9743	3572	4150	3643	2563	1950	1351		
Std Dev.S																							
MFI %CV	2941	3151	3112	3488	3169	3342	1295	1374	1264	1201	1405	2002	1945	954	1978	853	811	1098	621	517	240		
14%	13%	13%	17%	15%	16%	23%	22%	24%	25%	22%	21%	24%	22%	20%	24%	20%	30%	24%	27%	18%			

Blue = DSA against cell #157 only

Gold = DSA against cell #158 only

Green = DSA against cell #157 and #158

Table 23b. Individual laboratory results for Serum #168 - class II by Lifecodes-Immucor Single Antigen

	**** Serum 168 ****																				Other		
Ctrl	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR1	DR103	DR11	DR12	DR13	DR15	DR16	DR4	DR51	DR8	DR9	DR14	DR10	DPw5	DR7	Other	
3808	10583	12099	15076	8349	14050	11619	1782	2127	2298	1735	2129	3729	2863	1978	3743	974	1097	983			DR1403,DQA1*03,DQA1*04	Immucor	
8029	15148	15112	17040	12810	16612	15765	3836	3989	4521	3457	3973	6145	4726	3650	7329	2079	2252	1672	1462	1668	1197	DR1403,DR1404,DR53	Lifecodes
Avg	12866	13606	16058	10580	15331	13692	2809	3058	3410	2596	3051	4937	3795	2814	5536	1527	1675	1328	-	-	-		
Std Dev.S																							
3228	2131	1389	3154	1812	2932	1452	1317	1572	1218	1304	1708	1317	1182	2536	781	817	487	-	-	-			
25%	16%	9%	30%	12%	21%	52%	43%	46%	47%	43%	35%	35%	42%	46%	51%	49%	37%	-	-	-			

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Table 24. Individual Virtual crossmatch results for Serum #167 vs Donor# V1

Donor #V1 HLA A*66:01-A*68:02-B*14:02-B*53:01-C*06:02:01G-C*08:02-DRB1*13:02-DRB1*13:03-DRB3*01:01-DRB3*03:01-DQA1*01:02:01G-DQA1*05:01:01G-DQB1*03:01:01G-DQB1*06:04:01G-DPA1*01:03-DPA1*02:01-DPB1*04:01-DPB1*17:01:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	167	37	Positive	B53(5724) B65(6386)	Positive	No class II DSA	Unacceptable	Positive due to Class I DSA.
792	167	71	Positive	B53(3279) B65(3788)	Positive	No class II DSA	Unacceptable	No Class II DSA, positivity due to Class I expression on B Cells
1426	167	95%	Positive	B53(2970) B65(3480)	Positive	No class II DSA	Unacceptable	
1461	167	20	Positive	B53(716) B65(909)	Positive	No class II DSA	Unacceptable	
2400	167	71	Positive	B53(3439) B65(3898)	Borderline	No class II DSA	Unacceptable	Weak Positive due to Class I DSA
3224	167	96.43%	Positive	B53(4174) B65(4193) Bw4(18335)	Positive	No class II DSA	Unacceptable	CLASS 1 Unacceptable Present
3632	167	71	Positive	B53(2890) B65(3298)	Positive	No class II DSA	Unacceptable	DSAs to B65 (MFI=3298), B53 (MFI=2890). Do not recommend move forward, FXM mostly positive. B cell VXM positive due to Class I DSAs .
3753	167	91	Positive	B53(4002) B65(4326)	Positive	No class II DSA	Unacceptable	No Class II DSA
3808	167		Positive	B53(658) B14(1004)	Positive	No class II DSA	Unacceptable	Due to Class I DSA
8001	167	95	Positive	B53(4509) B65(5038)	Positive	No class II DSA	Unacceptable	DSA to C*08:02 not r/o as it is not represented on our LSAB panel. DSA to DRB1*13:02 not r/o as it is not represented on our LSAB panel.
8029	167	31	Positive	B53(1333) B65(1444) Bw4(8740) Bw6(9661)	Negative	No class II DSA	Unacceptable	-
8050	167	81.619	Positive	B53(3683) B65(4552)	Positive	No class II DSA	Unacceptable	
8080	167	85	Positive	B53(4500) B65(4792)	Positive	No class II DSA	Unacceptable	Patient has Class I DSA
8083	167	70.82	Positive	B53(4762) B65(5634)	Positive	No class II DSA	Unacceptable	DSA to class I antibodies
8103	167	47	Borderline	B53(6413), B14(8780)	Negative	No class II DSA	Acceptable	
8110	167	97%	Positive	B53(14026) B65(14632)	Positive	No class II DSA	Unacceptable	Expect flow B-cell positive d/t HLA Class I DSA.
8111	167		Positive	B53(3500) B65(4200)	Positive	No class II DSA	Unacceptable	Positive due to Class I

Table 25. Individual Virtual crossmatch results for Serum #167 vs Donor# V2

Donor #V2 HLA A*02:03-B*54:01-B*15:12-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

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	167	34%	Positive	B54(17103)	Positive	No class II DSA	Unacceptable	Positive due to Class I DSA
792	167	71	Positive	B54(10887)	Positive	No class II DSA	Unacceptable	No Class II DSA, positivity due to Class I expression on B Cells
1426	167	95%	Positive	B54(11350)	Positive	No class II DSA	Unacceptable	
1461	167	20	Positive	B54(2215)	Positive	No class II DSA	Unacceptable	
2400	167	71	Positive	B54(11997)	Positive	No class II DSA	Unacceptable	Due to Class I DSA
3224	167	96.43%	Positive	B54(13116)	Positive	No class II DSA	Unacceptable	CLASS 1 Unacceptable Present
3632	167	71	Positive	B54(12035)	Positive	No class II DSA	Unacceptable	DSA to B54 (MFI=12035). Do not recommend move forward, FXM mostly positive. B cell VXM positive due to Class I DSAs.
3753	167	91	Positive	B54(14172)	Positive	No class II DSA	Unacceptable	
3808	167		Positive	B54(2917)	Positive	No class II DSA	Unacceptable	due to Class I DSA
8001	167	95	Positive	B54(14990)	Positive	No class II DSA	Unacceptable	DSA to C*04:03 could not be ruled out as it is not represented on our LSAB panel. DSA to DRB5*01:03 could not be ruled out as it is not represented on our LSAB panel.
8029	167	31	Positive	B54(4107) Bw6(9661)	Negative	No class II DSA	Unacceptable	-
8050	167	81.619	Positive	B54(14302)	Positive	No class II DSA	Unacceptable	
8080	167	85	Positive	B54(12344)	Positive	No class II DSA	Unacceptable	Patient has Class I DSA
8083	167	70.82	Positive	B54(15665)	Positive	No class II DSA	Unacceptable	DSA to class I antibodies
8103	167	47	Positive	B54(15013) B15(7316)	Negative	No class II DSA	Unacceptable	high MFI (class I)
8110	167	97%	Positive	B54(23778) B76(3644)	Positive	No class II DSA	Unacceptable	Expect flow B-cell positive d/t HLA Class I DSA.
8111	167		Positive	B54(12500)	Positive	No class II DSA	Unacceptable	Positive due to Class I

Table 26. Individual Virtual crossmatch results for Serum #167 vs Donor# V3

Donor #V3 HLA A*03:01-B*35:01-B*56:01-C*01:02-C*04:01-DRB1*01:01-DQA1*01:01-DQB1*05:01:01G-DPA1*01:03-DPB1*02:01:04G-DPB1*04:02:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	167	34%	Positive	B56(5307) B35(8508)	Positive	No class II DSA	Unacceptable	Positive due to Class I DSA
792	167	71	Positive	B56(3031) B35(5176)	Positive	No class II DSA	Unacceptable	No Class II DSA, positivity due to Class I expression on B Cells
1426	167	95%	Positive	B56(2996) B35(4980)	Positive	No class II DSA	Unacceptable	
1461	167	20	Positive	B35(699)	Positive	No class II DSA	Unacceptable	
2400	167	71	Positive	B56(3514) B35(5461)	Positive	No class II DSA	Unacceptable	Due to Class I DSA
3224	167	96.43%	Positive	B56(3576) B35(6303)	Positive	No class II DSA	Unacceptable	CLASS 1 Unacceptable Present
3632	167	71	Positive	B56(3392) B35(4917)	Positive	No class II DSA	Unacceptable	DSAs to B35 (MFI=4917) and B56 (MFI=3392). Do not recommend move forward, FXM mostly positive. B cell VXM positive due to Class I DSAs
3753	167	91	Positive	B56(3270) B35(6310)	Positive	No class II DSA	Unacceptable	
3808	167		Borderline	B35(654)	NT	No class II DSA	Further investigation required	DSA of B*35:01 using Immucor kits may be too weak to predict a positive crossmatch
8001	167	95	Positive	B56(4117) B35(6962)	Positive	No class II DSA	Unacceptable	
8029	167	31	Positive	B56(789) B35(1359) Bw6(9661)	Negative	No class II DSA	Unacceptable	-
8050	167	81.619	Positive	B56(3334) B35(6331)	Positive	No class II DSA	Unacceptable	
8080	167	85	Positive	B56(3715) B35(6478)	Positive	No class II DSA	Unacceptable	Patient has Class I DSA
8083	167	70.82	Positive	B56(4331) B35(6840)	Positive	No class II DSA	Unacceptable	DSA to class I antibodies
8103	167	47	Borderline	B56(7213) B35(7158) Cw4(1410)	Negative	No class II DSA	Acceptable	Low MFI (class I)
8110	167	97%	Positive	B56(14448) B35(16557)	Positive	No class II DSA	Unacceptable	Expect flow B-cell positive d/t HLA Class I DSA.
8111	167		Positive	B56(3400) B35(6000)	Positive	No class II DSA	Unacceptable	Positive due to Class I

Table 27. Individual Virtual crossmatch results for Serum #168 vs Donor# V1

Donor #V1 HLA A*66:01-A*68:02-B*14:02-B*53:01-C*06:02:01G-C*08:02-DRB1*13:02-DRB1*13:03-DRB3*01:01-DRB3*03:01-DQA1*01:02:01G-DQA1*05:01:01G-DQB1*03:01:01G-DQB1*06:04:01G-DPA1*01:03-DPA1*02:01-DPB1*04:01-DPB1*17:01:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	168	82%	Positive	A68(8867)	Positive	DR13(8400) DQ7(23140) DQ6(27169)	Unacceptable	
792	168	99	Positive	A68(4810)	Positive	DR13(5096) DQ7(18630) DQ6(17959)	Unacceptable	
1426	168	98%	Positive	A68(3827)	Positive	DR13(4243) DQ7(18226) DQ6(20144)	Unacceptable	
1461	168	31	Positive	A68(1250)	Positive	DR13(1671) DQ7(6910) DQ6(9649) DQA1*01(10064)	Unacceptable	
2400	168	98	Positive	A68(4532)	Positive	DR13(4334) DQ7(15226) DQ6(19567)	Unacceptable	
3224	168	99.01%	Positive	A68(8098)	Positive	DR13(6157) DQ7(22928) DQ6(24027) DQA1*01(24027)	Unacceptable	CLASS 1 Unacceptable Present, CLASS 2 Unacceptable Present
3632	168	98	Positive	A68(4030)	Positive	DR13(5523) DQ7(25525) DQ6(23331)	Unacceptable	DSA to A68 (MFI = 4030). Do not recommend move forward, FXM mostly positive. DSAs to DR13 (DRB1*13:03, MFI=5523 and DRB1*13:02, MFI=2022), DQ6 (MFI=23331) and DQ7 (MFI=25525). Do not recommend move forward, FXM mostly positive.
3753	168	100	Positive	A68(6882)	Positive	DR13(5924) DQ7(20683) DQ6(26398)	Unacceptable	
3808	168		Positive	A68(1639)	Positive	DR13(2129) DQ1(15076) DQ3(8349) DQ6(15076)	Unacceptable	A*66 is also a previous mismatch
8001	168	100	Positive	A68(7575)	Positive	DR13(6820) DQ7(24799) DQ6(24504)	Unacceptable	DSA to C*08:02 could not be ruled out as it is not represented on our LSAB panel. DSA to DQA1*01:02 could not be ruled out due to DQB* overlap. DSA to DRB1*13:02 could not be ruled out as it is not represented on our LSAB panel.
8029	168	26	Positive	A68(1149)	Positive	DR13(3973) DQ7(12810) DPw5(1668) DQ6(17040)	Unacceptable	-
8050	168	98.321	Positive	A68(5033)	Positive	DR13(6297) DQ7(21011) DQ6(27586)	Unacceptable	
8080	168	99	Positive	A68(7723)	Positive	DR13(11291) DQ7(19078) DQ6(19675)	Unacceptable	
8083	168	99.55	Positive	A66(5045) A68(7463)	Positive	DR13(7962) DQ7(28224) DQ6(25064)	Unacceptable	DSA to class I antibodies
8103	168	51	Borderline	A68(4822)	Positive	DQ6(18102) DQA1*01(18102) DQ3(15452), DQ7(15129) DR13(3108)	Unacceptable	Low class I MFI; high class II MFI
8110	168	100%	Positive	A66(1947) A68(20382)	Positive	DR13(8252) DQ7(22871) DQ6(26351)	Unacceptable	
8111	168		Positive	A68(5400)	Positive	DR13(5800) DQ7(19000) DQ6(21200)	Unacceptable	

Table 28. Individual Virtual crossmatch results for Serum #168 vs Donor# V2

Donor #V2 HLA A*02:03-B*54:01-B*15:12-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

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	168	82%	Positive	A2(13396) B54(5176)	Positive	DR4(5552) DR15(13299) DQ4(24499) DQ5(25921)	Unacceptable	
792	168	99	Positive	A2(7489) B54(2697)	Positive	DR4(2954) DR15(7492) DR51(8458) DQ4(18045) DQ5(20514) DPw5(1772)	Unacceptable	
1426	168	98%	Positive	A2(5573) B54(2965)	Positive	DR4(3084) DR15(6916) DR51(7249) DQ4(20002) DQ5(22293) DPw5(1042)	Unacceptable	
1461	168	31	Positive	A2(1664)	Positive	DR4(1174) DR15(2198) DR51(2966) DQ4(8101) DQ5(7464) DQA1*01(5732) DQA1*03(10602)	Unacceptable	
2400	168	98	Positive	A2(7409) B54(2679)	Positive	DR4(2659) DR15(6613) DR51(7619) DQ4(18301) DQ5(18613) DPw5(1648)	Unacceptable	
3224	168	99.01%	Positive	A2(11769) B54(4141)	Positive	DR4(4356) DR15(8858) DR51(8371) DQ4(21353) DQ5(23725) DQA1*01(24027)	Unacceptable	CLASS 1 Unacceptable Present. CLASS 2 Unacceptable Present
3632	168	98	Positive	A2(6639) B54(2111)	Positive	DR4(3120) DR15(7743) DR51(8376) DQ4(24974) DQ5(28323)	Unacceptable	DSAs to A2 (MFI=6639), B54 (MFI=2111). DSAs to DQ4 (MFI=24974), DR15 (MFI=7743), DR4 (MFI=3120), DR51 (MFI=8376) and DQ5 (MFI=28323).Do not recommend move forward, FXM mostly positive.
3753	168	100	Positive	A2(10244) B54(3810)	Positive	DR4(3640) DR15(9122) DR51(9100) DQ4(21083) DQ5(25888)	Unacceptable	
3808	168		Positive	A203(2024) B54(628)	Positive	DR4(1565) DR15(3158) DR51(3727) DQ4(10040) DQ5(10436) DQA1*01(7176) DQA1*03(14050)	Unacceptable	
8001	168	100	Positive	A2(11512) B54(4391)	Positive	DR4(3929) DR15(9559) DQ4(24444) DQ5(23240) DPw5(1822)	Unacceptable	DSA to C*04:03 could not be ruled out as it is not represented on our LSAB panel. DSA to DQA1*01:01 could not be ruled out due to DQB* overlap. DSA to DRB5*01:03 could not be ruled out as it is not represented on our LSAB panel.
8029	168	26	Positive	A203(1520)	Positive	DR4(3650) DQ4(15148) DQ5(13406) DPw5(1668)	Unacceptable	-
8050	168	98.321	Positive	A2(7582) B54(3185)	Positive	DR4(3895) DR15(9245) DR51(9850) DQ4(22664) DQ5(26266) DPw5(2072)	Unacceptable	

Table 28. Individual Virtual crossmatch results for Serum #168 vs Donor# V2

Donor #V2 HLA A*02:03-B*54:01-B*15:12-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

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
8080	168	99	Positive	A2(22220) B54(4117)	Positive	DR4(3490) DR15(8808) DR51(9136) DQ4(19490) DQ5(19176) DPw5(1930)	Unacceptable	
8083	168	99.55	Positive	A2(11176) B54(3914)		DR4(4531) DR15(12000) DR51(13269) DQ4(26142) DQ5(23931) DPw5(2757)	Unacceptable	DSA to class I antibodies
8103	168	51	Positive	A2(7589) B54(3092) Cw1(1082)		DR4(2593) DR15(5017) DR51(5698) DQ4(15210) DPw5(1301) DQA1*01(18102) DQA1*03(15210)	Unacceptable	high class I MFI; high class II MFI
8110	168	100%	Positive	A2(24440) B76(2042) Cw1(1534)		DR4(5830) DR15(11420) DR51(11133) DQ4(23107) DQ5(25372) DPw5(2406)	Unacceptable	
8111	168		Positive	A203(7900) B54(3500)		DR4(3900) DR15(8700) DR51(9000) DQ4(20000) DQ5(23000)	Unacceptable	

Table 29. Individual Virtual crossmatch results for Serum #168 vs Donor# V3

Donor #V3 HLA A*03:01-B*35:01-B*56:01-C*01:02-C*04:01-DRB1*01:01-DQA1*01:01-DQB1*05:01:01G-DPA1*01:03-DPB1*02:01:04G-DPB1*04:02:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	168	82%	Positive	B56(6589)	Positive	DR1(7997) DQ5(29176)	Unacceptable	
792	168	99	Positive	B56(3746)	Positive	DR1(4451) DQ5(20514)	Unacceptable	
1426	168	98%	Positive	B56(3920)	Positive	DR1(4521) DQ5(25304)	Unacceptable	
1461	168	31	Positive	B56(595)		DR1(1731) DQ5(8606)		
2400	168	98	Borderline	B56(3260)	Positive	DQA1*01(5732)	Unacceptable	
3224	168	99.01%	Positive	B56(5149)	Positive	DR1(3846) DQ5(22120)	Unacceptable	Weak Class I DSA
						DR1(5509) DQ5(23725)	Unacceptable	CLASS 1 Unacceptable Present; CLASS 2 Unacceptable Present
3632	168	98	Positive	B56(3050)	Positive	DQA1*01(24027)	Unacceptable	
3753	168	100	Positive	B56(4752)				DSA to B56 (MFI=3050). Do not recommend move forward, FXM mostly positive. DSAs to DQ5 (MFI=28323) and DR1 (MFI=4947).Do not recommend move forward, FXM mostly positive.
3808	168		Negative	No class I DSA	Positive	DR1(4947) DQ5(28323)	Unacceptable	
8001	168	100	Positive	B56(5530)	Positive	DR1(4951) DQ5(25888)	Unacceptable	
8029	168	26	Negative	No class I DSA		DR1(1782) DQ5(12099)		
8050	168	98.321	Positive	B56(4204)	Positive	DQA1*01(7176)	Unacceptable	
8080	168	99	Positive	B56(5286)				DSA to DQA1*01:01 could not be ruled out due to DQB* overlap
8083	168	99.55	Positive	B56(5157)	Positive	DR1(5660) DQ5(25960)	Unacceptable	
					Positive	DR1(3836) DQ5(15112)	Unacceptable	-
					Positive	DR1(5506) DQ5(26266)	Unacceptable	
					Positive	DR1(10144) DQ5(40354)	Unacceptable	
					Positive	DR1(6792) DQ5(30121)	Unacceptable	DSA to class I antibodies
8103	168	51	Borderline	B56(4312) Cw4(1269) Cw1(1082)		DR1(3113) DQ3(13452)		
8110	168	100%	Positive	Cw4(1716) B56(16605)	Positive	DQA1*01(18102)	Unacceptable	high class II MFI
8111	168		Positive	B56(4550)	Positive	DR4(7331) DQ5(25372)	Unacceptable	
					Positive	DR1(5100) DQ5(23000)	Unacceptable	

Table 30: Individual Cutoff values and Pretreatment - Exchange 28

Ctr	Locus	Pos Cutoff Value	Locus	Pos Cutoff Value	Manufacturer	Kit type	Sera pretreatment
230	A	4000	DRB1	4000	One Lambda	ExPlex-Single Antigen	None
	B	4000	DRB3/4/5	4000			
	C	10000	DQA1	4000			
	Class I		DQB1	4000			
			DPB1	10000			
			Class II				
615	A		DRB1		One Lambda	Single Antigen	EDTA
	B		DRB3/4/5				
	C		DQA1				
	Class I	500	DQB1				
			DPB1				
			Class II	500			
792	A	1500	DRB1	1500	OneLambda	LS2A01	EDTA/FBS
	B	1500	DRB3/4/5	1500			
	C	1500	DQA1	1500			
	Class I	1500	DQB1	1500			
			DPB1	1500			
			Class II	1500			
1426	A	1000	DRB1	1000	One Lambda	LabScreen Class II Single Antigen	DTBA
	B	1000	DRB3/4/5	1000			
	C	1000	DQA1	1000			
	Class I	1000	DQB1	1000			
			DPB1	1000			
			Class II	1000			
3224	A	1000	DRB1	1000	One Lambda	Single Antigen	EDTA
	B	1000	DRB3/4/5	1000			
	C	1000	DQA1	1000			
	Class I	1000	DQB1	1000			
			DPB1	1000			
			Class II	1000			
3632	A	2000	DRB1	2000	One Lambda	Single Antigen	EDTA
	B	2000	DRB3/4/5	2000			
	C	2000	DQA1	2000			
	Class I		DQB1	2000			
			DPB1	2000			
			Class II				
3753	A	1000	DRB1	1000	One Lambda	LS2A01	DTT
	B	1000	DRB3/4/5	1000			
	C	2000	DQA1	1000			
	Class I	1000	DQB1	1000			
			DPB1	2000			
			Class II	1000			

Table 30: Individual Cutoff values and Pretreatment - Exchange 28

Ctr	Locus	Pos Cutoff Value	Locus	Pos Cutoff Value	Manufacturer	Kit type	Sera pretreatment
3808	A	750	DRB1	750	Immucor	Luminex	Heat Inactivation
	B	750	DRB3/4/5	750			
	C	750	DQA1	750			
	Class I	750	DQB1	750			
			DPB1	750			
			Class II				
5214	A	2000	DRB1	2000	One Lambda	LS2	EDTA
	B	2000	DRB3/4/5	2000			
	C	2000	DQA1	2000			
	Class I	2000	DQB1	2000			
			DPB1	2000			
			Class II	2000			
8001	A		DRB1		One Lambda	LS2A01	EDTA
	B		DRB3/4/5				
	C		DQA1				
	Class I	1000	DQB1				
			DPB1				
			Class II	1000			
8029	A	500	DRB1	500	LIFECODES	CLASS II	
	B	500	DRB3/4/5	500			None
	C	500	DQA1	500			
	Class I	34	DQB1	500			
			DPB1	500			
			Class II	30			
8050	A	1000	DRB1	1000	One Lambda	LS2A01	
	B	1000	DRB3/4/5	1000			DTT
	C	1000	DQA1	1000			
	Class I	1000	DQB1	1000			
			DPB1	1000			
			Class II	1000			
8083	A		DRB1		One Lambda	Single Antigen	
	B		DRB3/4/5				EDTA
	C		DQA1				
	Class I	2000	DQB1				
			DPB1				
			Class II	2000			
8103	A	500	DRB1	500	One Lambda	LSA class II beads	
	B	500	DRB3/4/5	500			DTT
	C	500	DQA1	500			
	Class I		DQB1	500			
			DPB1	500			
			Class II				
8111	A	1000	DRB1	1000	One Lambda	SAB	
	B	1000	DRB3/4/5	1000			DTE
	C	1000	DQA1	1000			
	Class I	1000	DQB1	1000			
			DPB1	1000			
			Class II	1000			