

Report of the 34th Single Antigen, Flow and Virtual Crossmatch Exchange

June 18, 2025

Cells	199-200
Serum	201-204

In this study, virtual donor V2 and serum 179 (patient 1) from Exchange 30 (September 2023) are re-examined as cell 199 and serum 202. A comparison of virtual crossmatch predictions (VXM) (**V2 vs. serum 179**) against the physical flow crossmatch (FXM) (**cell 199 vs. serum 202**) are summarized in **Part 1** of this report. **Part 2** examines the Luminex single antigen

(SAB) data for serum sample nos. **201 - 204**. **Part 3** summarizes the FXM results for **cells 199 and 200** against the 4 sera. Finally, in **Part 4**, the VXM predictions for 3 potential donors (V1 - V3) against serum 203 and serum 204 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. Seventeen labs submitted virtual crossmatch predictions in Exchange 30. Among them, 12 labs reported back physical FXM results in Exchange 34 (Table 1a). In the presence of strong (MFI > 15000) class I DSA, 11 out of 12 labs predicting the expected T-cell FXM to

be positive in Exchange 30 reported the physical T-cell FXM as positive as well (Table 1b). For the physical B-cell FXM, all 12 labs reported it as positive. In Exchange 30, 11 labs predicted the expected B-cell FXM to positive and 1 lab predicted borderline results. Strong (MFI > 15000) class I and class II DSA were reported in each study.

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

Exchange 30					Exchange 034				
Virtual Crossmatch - Donor V2 vs. Serum 179					Physical Flow Crossmatch - Cell 199 vs. Serum 202				
Donor	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Cell	Serum no.	#Labs	T-cell Results	B-cell Results
V2	179	12	POS (12)	POS(11) Borderline (1)	199	202	12	POS(11) Borderline (1)	POS (12)

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

		T-cell Virtual XM (Exchange 30)					B-cell Virtual XM (Exchange 30)		
		+	-	Ø			+	-	Ø
Physical T-cell FXM (Exchange 34)	+	11			Physical B-cell FXM (Exchange 34)	+	11		1
	-					-			
	Ø	1				Ø			

+ / - = positive/negative

Ø = borderline/not typed

n = number of labs

The reporting of DSA and DSA strength was also consistent across the 2 studies (Table 1c). In Exchange 30, A1 (16022), Cw6 (8388), Cw17 (7464), and DQ2 (17153) were the reported DSA. In Exchange 34, labs

once again reported anti-A1, -Cw6, -Cw17, and -DQ2 reactivity against the donor, cell 199. Respective median MFI's for each were 15360, 10810, 7475, and 19159.

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

Cell 199 HLA genotype: A*01:01:01-A*23:01:01-B*42:01:01-B*50:01:01-C*06:02:01-C*17:01:01/DRB1*03:02:01-DRB1*07:01:01-DRB3*01:01:02, DRB4*01:03:01-DQA1*02:01:01, DQA1*04:01:01-DQB1*02:02, DQB1*04:02:01-DPA1*01:03:01-DPA1*02:01:01-DPB1*01:01:02-DPB1*04:02:01

Exchange 030					Exchange 034				
Virtual Crossmatch - Donor V2 vs. Serum 179 (Patient 1)					Physical Flow Crossmatch - Cell 199 vs. Serum 202				
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	Positive	Cw 6(16313) A1(16533) Cw 17(15013)	Positive	DQ2(11439)	230	POSITIVE	A1,Cw 6, Cw 17	POSITIVE	DQ2
792	Positive	Cw 6(8735) A1(16557) Cw 17(6522)	Positive	DQ2(8343)	792	POSITIVE	A1(15001), C6(9003), C17(5925)	POSITIVE	DQ2(11540)
1426	Positive	Cw 6(9105) A1(16232) Cw 17(7437)	Positive	DQ2(9037)	1426	POSITIVE	A1(19368), Cw 6(12757), Cw 17(10699)	POSITIVE	DQ2(17921)
2400	Positive	Cw 6(8105) A1(15197) Cw 17(7937)	Positive	DQ2(8991)	2400	POSITIVE	C*06:02(9076) C*17:01(6883)	POSITIVE	DQB1*02:02(11805)
3224	Positive	Cw 6(6160) A1(12637) Cw 17(5792)	Positive	DQ2(19759)	3224	POSITIVE		POSITIVE	
3753	Positive	Cw 6(8313) A1(17403)	Positive	DQ2(13813)	3753	POSITIVE	A1(18908), C6(11313), C17(6480)	POSITIVE	DQ2(15114)
3808	Positive	Cw 6(2498) A1(4346) Cw 17(2474)	Positive	DQ2(9402)	3808	POSITIVE	A*01:01(7025), C*06:02(4252), C*17:01(3059)	POSITIVE	DQB1*02:02(12173)
3966	Positive	Cw 6(9353) A1(17774) Cw 17(8177)	Positive	DQ2(12998)	3966	POSITIVE		POSITIVE	
8001	Positive	Cw 6(8039) A1(16144) Cw 17(5817)	Positive	DQ2(7947)	8001	POSITIVE	A1(19852), Cw 6(11748), Cw 17(8550)	POSITIVE	DQB1*02:02(12491)
8083	Positive	A1(21403) Cw 17(11687)	Positive	DQ2(17101) DQA1*05(17101)	8083	POSITIVE	C*06:02(12355), C*17:01(8832)	POSITIVE	DQB1*02:02(25661)
8103	Positive	Cw 6(3899) A1(7237) Cw 17(5259)	Borderline	DQ2(4225) DQA1*05(11024)	8103	Borderline	A*01:01,C*17:01	POSITIVE	DQB1*02:02
8111	Positive	Cw 6(8450) A1(17100) Cw 17(7500)	Positive	DQ2(24000)	8111	POSITIVE	A1(14000) Cw 6(8000) C*17(7000)	POSITIVE	DQ2(14000)

Part 2

Class I and class II single antigen results for serum samples 201 - 204 are summarized in Tables 12 - 15. Individual listing of results for each par-

ticipating laboratory are listed in Tables 16 – 22. Pretreatment and cutoff values are listed in Table 29.

Antibody Identification

Serum 201 Reactivity to a number of 1C, 10C, and DQ specificities was reported in this sample, including strong anti-A1 (17892), -A36 (13188), -A80 (9412), -A11(11254), -DQ6 (21225), and -DQ5 (16697) reactivity. In addition, 4 labs reported strong DQA1*01 (20108) reactivity.

Reported DSA against cell 199 were A1 (17892) and DQ4 (7150). Against cell 200, strong anti-DQ6 (21255) reactivity was reported by labs. A few labs (n= 4) also reported DQA1*01 (20108) as a DSA against cell 200.

Serum 202: This sample was previously examined as serum 179 in Exchange 30. As shown in the table below, the reporting of class I and class II antibodies was consistent across the 2 studies.

Class I	
*** Serum 179 ***	
Antigen	Median
B73	20185
Cw7	19496
A11	16368
A1	16022
A80	13773
A25	14223
Cw18	13031
A34	13158
A36	13929
A26	12711
A43	11803
Cw6	8388
Cw17	7464
Cw16	2723

Class I	
*** Serum 202 ***	
Antigen	Median
B73	19994
Cw7	18597
A11	15722
A1	15360
A80	14682
A25	14653
Cw18	14618
A34	14130
A36	13519
A26	13189
A43	12721
Cw6	10810
Cw17	7475
Cw16	2361

Class II	
*** Serum 179 ***	
Antigen	Median
DQ2	17153

Class II	
*** Serum 202 ***	
Antigen	Median
DQ2	19159

Strong class I reactivity was detected in this sample once again, including anti-B73 (19994), -Cw7 (18597), -A1 (15360), -A80 (14682), and -A25 (14653) reactivity. In addition, strong anti-DQ2 (19159) reactivity was reported.

Multiple DSA were reported against cell 199 (A1, Cw6, Cw17, DQ2), with respective median MFI = 15360, 10810, 7475, 19159. There were no class I or class II DSA reported against cell 200.

Serum 203: Strong reactivity to a number of 7C specificities was detected in this sample, including anti-B7 (23272), -B67 (23172), -B42 (22253), -B73 (21243), -B55 (21041), -B56 (20163), -B81 (21606), and -B27 (21976) reactivity. In addition, strong anti-DR15 (19015), -DQ6 (16903), -DQ5 (15958), -DR16 (15087), and -DR51 (10593) reactivity was reported.

Against cell 199, labs reported anti-B42 (22253), -Cw17 (3049), -DQ4 (7588), and -DR7 (5517) reactivity. Multiple DSA were reported against cell 200 as well, with labs reporting anti-Cw2 (3966), -B27 (21976), and -DQ6 (16903) reactivity. In addition, 4 labs reported anti-DQA1*01 (15286) reactivity against cell 200.

Serum 204: Strong anti-B13 (15976), -Bw4 (13398), -DQ2 (18793), -DR7 (15469), and -DQA1*02 (12348) reactivity was detected in this sample. Additional reactivity to a number of other class I and class II specificities, including reactivity to A68 (7772), A25 (7358), A69 (7133), A32 (6542), B57 (6416), B63 (6052), DR12 (6331), DR9 (5989), and DR53 (3827) was reported by labs.

Multiple DSA (A23, DQ2, DR7, DR53, DR52, DQA1*02) were reported against cell 199, with respective median MFI = 4958, 18793, 15469, 3827, 12348, 6810). Weak anti-Cw6 (1770) and -Cw17 (1232) reactivity was also reported against cell 199 by some labs. Reported DSA against cell 200 were A32 (6542), A2 (5008), B44 (4402), B27 (3781), Bw4 (13398), and DR52 (6810).

Genotypes of cells provided by UCLA

Cell 199 (Black): A*01:01:01-A*23:01:01-B*42:01:01-B*50:01:01-C*06:02:01-C*17:01:01/DRB1*03:02:01-DRB1*07:01:01-DRB3*01:01:02, DRB4*01:03:01-DQA1*02:01:01, DQA1*04:01:01-DQB1*02:02, DQB1*04:02:01-DPA1*01:03:01-DPA1*02:01:01-DPB1*01:01:02-DPB1*04:02:01

Cell 200 (Mixed): A*02:01:01-A*32:01:01-B*27:05:02-B*44:02:01-C*02:02:02-C*05:01:01/DRB1*11:01:01-DRB1*13:01:01-DRB3*01:01:02-DRB3*02:02:01-DQA1*01:03:01-DQA1*05:05:01-DQB1*03:01:01G-DQB1*06:03-DPA1*01:03:01-DPB1*03:01:01G-DPB1*04:01:01G

Conclusion:

Good agreement (> 90%) was achieved in the reporting of class I and class II antibodies across all 4 sera. In each case, the strength of the highest antibody was > 15000 MFI.

A total of 16 labs submitted single antigen data for samples 201 - 204. For kit type (Figure 1), 14 labs (87%) tested the samples using the One Lambda LABScreen Single Antigen kit. Among those labs, 3 labs noted using the Explex kit as well. The remaining 2 labs (13%) used the Werfen, LIFECODES® Single

Antigen Assays (LSA) kit.

A total of 15 labs provided pretreatment information (Figure 2). The majority of labs (n = 9) pretreated the sera with EDTA (60%). Two labs (13%), used a combination of FBS and EDTA, 1 lab (7%) used PreSorb™, and 1 other lab treated with DTT. Only 2 labs (13%) indicated the samples were untreated prior to testing.

Figure 1. Kit Information breakdown

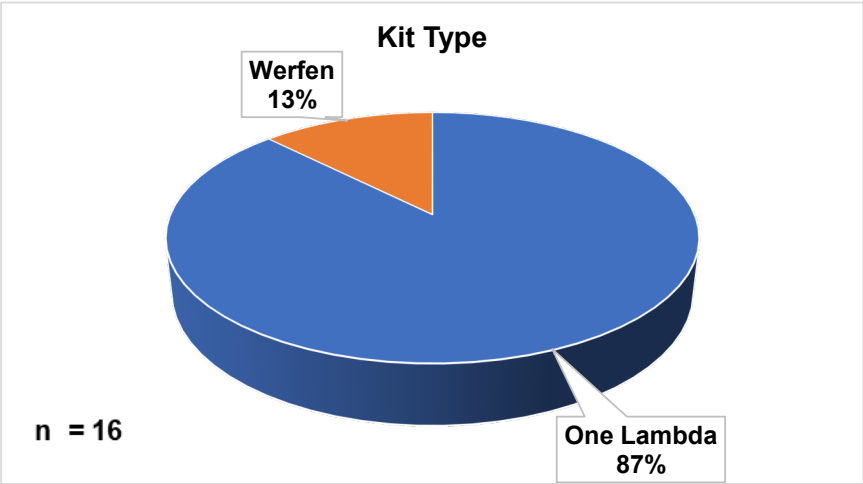
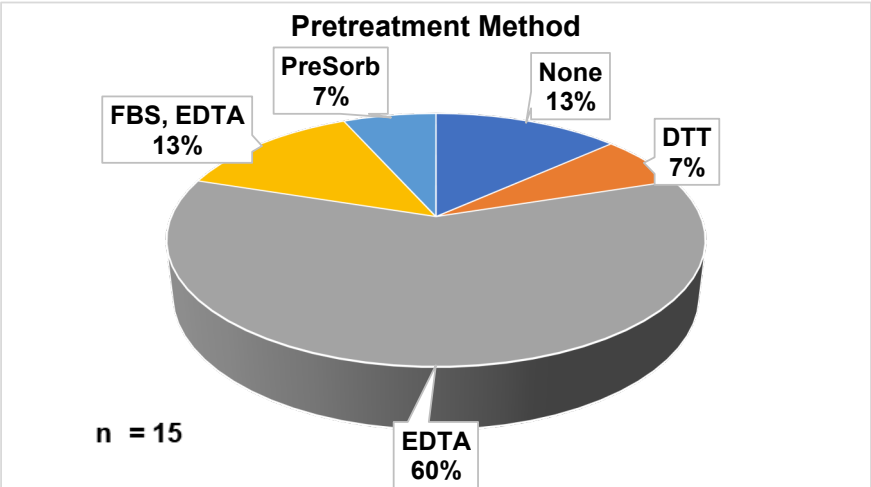


Figure 2. Sera pretreatment breakdown



Part 3

Flow cytometric crossmatch results for cell 199 and cell 200 against serum samples 201 - 204 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 199. For cell 199, $\geq 80\%$ agreement was achieved for all 8 T/B-cell FXM in which each was reported as positive. Strong class I and/or class II DSA of > 15000 MFI were present in 7 out of the 8 T/B-cell FXM.

Cell 200. For cell 200, $\geq 80\%$ agreement was also achieved for all 8 T/B-cell FXM. Among them, 5 were reported as positive. In each case, DSA of > 13000 MFI were present.

Table 2. Summary of Flow crossmatch results for Cell #199- #200 vs. Serum #202 - #204

Cell no.	Serum no.	#Labs	T-cell Results	B-cell Results	Cell no.	Serum no.	#Labs	T-cell Results	B-cell Results
199	201	17	POS(15) NEG(1) Borderline(1)	POS(17)	200	201	17	NEG(16) POS(1)	POS(17)
199	202	17	POS(15) NEG(1) Borderline(1)	POS(16) NT(1)	200	202	17	NEG(17)	NEG(16) Borderline(1)
199	203	17	POS(16) NEG(1)	POS(17)	200	203	17	POS(17)	POS(17)
199	204	17	POS(14) NEG(3)	POS(17)	200	204	17	POS(15) NEG(1) Borderline(1)	POS(16) NEG(1)

Conclusion:

Good agreement ($\geq 80\%$) was achieved for all 8 T-cell FXM. Among 5 of the 6 positive T-cell FXM, class I DSA of > 13000 MFI were reported. In the case of serum 204 vs. cell 199, however, the strength of the highest DSA (A23) was only 4948 ± 2394 MFI. This may have led to the discrepancies observed in this patient-donor pair in which 14 labs reported it as positive and 3 labs reported it as negative. As previously observed, the sensitivity of the FXM may be variable when DSA strength is weak.

Good agreement ($\geq 80\%$) was achieved for all 8 B-cell FXM. Seven were reported as positive in the presence of class I or class II DSA of > 13000 MFI. Only 2 discrepancies were observed among the B-cell FXM. For serum 202 vs. cell 200, 1 lab reported the B-cell FXM as borderline in the absence of class I and class II DSA. For serum 204 against cell 200, 16 labs reported the B-cell FXM as positive in the presence of multiple DSA (A2, A32, B27, B44, Bw4, DR52), while 1 lab reported it as negative.

Part 4

Virtual XM predictions for each virtual donor (V1 - V3) against serum samples 203 and 204 are summarized in Table 3 and individual laboratory

predictions are listed in Tables 23 - 28. Fictional donor histories precede each patient-donor summary.

Virtual Crossmatch Paper Challenge

For virtual **T-cell predictions** of the expected T-cell FXM, $\geq 80\%$ agreement was achieved for 6 out of 6 challenges. All but 1 are predicted to be positive. In the case of serum 203, strong class I DSA of > 12000 MFI were reported against donors V1 - V3. For serum 204, multiple DSA of moderate strength were reported against each virtual donor.

For virtual **B-cell predictions** of the expected B-cell FXM, $\geq 80\%$ agreement was achieved for all 6 challenges. In the case of the positive predictions, strong class I DSA of ≥ 12000 MFI were reported for serum 203 against each of the 3 virtual donors. For serum 204, multiple class I and class II DSA were reported against the virtual donors.

Table 3. Summary of Virtual Crossmatch Predictions (Serum #203 - #204 vs. Donors V1 - V3)

Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction
V1	203	17	NEG(15) Borderline(1) NT(1)	NEG(16) NT(1)	V2	203	17	POS(16) NT(1)	POS(16) NT(1)
V1	204	17	POS(16) Borderline(1)	POS(14) NEG(3)	V2	204	17	POS(17)	POS(16) Borderline(1)
Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction					
V3	203	17	POS(16) NT(1)	POS(12) NEG(3) NT(2)					
V3	204	17	POS(16) Borderline(1)	POS(16) Borderline(1)					

DSA Identification

Patient 1 (Serum 203)

Patient's fictional case history: This individual is a 38-year-old male being evaluated for his second transplant. The HLA typing of the first transplant was A*11:01-A*30:02-B*35:01-B*15:12-C*04:01-C*04:03/DRB1*11:01-DRB3*02:02-DQA1*05:05-DQB1*03:01-DPA1*01:03-DPA1*02:01-DPB1*04:01-DPB1*05:01.

Patient 1's HLA type is as follows:

A*11:01, A*24:02	B*35:01, B*15:12	C*03:03, C*04:01			
DRB1*11:01 DRB1*12:01	DRB3*02:02	DQA1*05:03, DQA1*05:05	DQB1*03:01	DPA1*01:03	DPB1*04:01 DPB1*04:02

There were no class I or class II DSA reported against **donor V1**. As such, 16 labs predicted the expected T/B-cell FXM to be negative. One lab noting the presence of a weak DSA (Cw3, 1699 MFI), predicted a borderline physical T-cell FXM and a negative physical B-cell FXM.

Against **donor V2**, anti-B48 (12000) and -DQ4 (7588) reactivity was reported. In the presence of class I and class II DSA, no discrepancies were observed in predictions. All 16 labs predicted the expected T-cell and B-cell FXM to be positive.

Anti-B27 (21976) and -Cw2 (3966) reactivity was reported against **donor V3**. As expected, all 16 labs predicted the expected T-cell FXM to be positive in the presence of strong class I DSA. For B-cell predictions however, several discrepancies were observed; 12 labs predicted the expected B-cell FXM to be positive due to class I DSA, and 3 labs predicted it to be negative. The majority of labs (n = 15) indicated there were no class II DSA against Donor V3.

Virtual Donors – HLA genotype

Donor 1 (V1): HLA A*30:02:01-A*32:01:01-B*08:01:01-B*15:01:01-C*03:03:01-C*07:01:01/DRB1*11:01:01-DRB1*11:01:02-DRB3*02:02:01G-DQA1*05:05:01-DQA1*05:11:01-DQB1*03:01:01G-DPA1*01:03:01G-DPB1*02:01:02G-DPB1*04:01:01G

Donor 2 (V2): HLA A*02:06:01-A*68:03:01-B*35:12:01-B*48:01:01-C*04:01:01-C*08:01:01/DRB1*04:07:01-DRB1*08:02:01-DRB4*01:03:01-DQA1*03:01:01-DQA1*04:01:01-DQB1*03:02:01G-DQB1*04:02:01-DPA1*01:03:01-DPB1*04:02:01

Donor 3 (V3): HLA A*02:02:01-A*24:02:01-B*27:05:02-B*39:06:02-C*02:02:02-C*07:02:01/DRB1*04:04:01-DRB1*14:06:01-DRB3*01:01:02-DRB4*01:03:03-DQA1*03:01:01-DQA1*05:03:01-DQB1*03:02:01-DQB1*03:01:01-DPA1*01:03:01-DPB1*04:01:01G-DPB1*04:02:01G

Patient 2 (Serum 204)

Patient's fictional case history: This individual is a 45-year-old female being evaluated for her first transplant. The patient has had 1 prior pregnancy. The HLA type of the child is A*11:01-A*23:01-B*07:02-B*49:01-C*07:02-C*04:01/DRB1*15:01-DRB1*01:02-DRB5*01:01-DQA1*01:02-DQB1*06:02-DQB1*06:04-DPA1*01:03-DPB1*02:01-DPB1*04:01.

Patient 2's HLA type is as follows:

A*11:01, A*30:02	B*07:02, B*14:02	C*07:02, C*08:01			
DRB1*15:01, DRB1*15:03	DRB5*01:01	DQA1*01:02	DQB1*06:02	DPA1*01:03	DPB1*02:01, DPB1*04:01

Anti-A32 (6542) and –B62 (2252) reactivity was reported against **donor V1**. Sixteen labs predicted the expected T-cell FXM to be positive, and 1 lab noting low DSA MFI predicted borderline results. For B-cell predictions, 14 out of 17 labs predicted the expected B-cell FXM to be positive due to class I DSA. The remaining 3 labs predicted it to be negative.

Against **donor V2**, the reported DSA were A68 (7772), A2 (5008), and DR53 (3827). A number of labs noted the donor's A*68:03 was not included on the single antigen bead panel. For predictions, all 17 labs predicted the expected T-cell FXM to be positive, while 16 labs predicted the expected B-cell FXM to be positive. One lab predicted the B-cell FXM to be borderline due to weak class II DSA.

Anti-A24 (5195), -A2 (5008), -B27 (3781), -DR52 (6810), and -DR53 (3827) reactivity was reported against **donor V3**. Additionally, 4 labs assigned Bw4 (13398) as a DSA as well. A number of labs noted the donor's A*02:02 was not included on their single antigen panel. In the presence of multiple DSA, 16 out of 17 labs predicted the expected T/B-cell FXM to be positive. One lab noting low class I/II MFI, predicted each to be borderline.

Conclusion

For **serum 203**, ≥ 80% agreement was achieved among labs across all 6 virtual T/B-cell FXM challenges. Among the positive predictions, class I DSA of ≥ 12000 MFI were present. In the case of serum 203 vs. donor V3, several discrepancies were observed for B-cell predictions; 12 labs predicted the expected B-cell FXM to be positive and 3 labs predicted it to be negative. There were no class II DSA reported against donor V3, however, there were class I DSA present, B27 (21976 ± 7640), and Cw2 (3966 ± 4265). As a reminder, both class I and class II DSA should be considered when predicting the expected physical B-cell FXM.

For **serum 204**, ≥ 80% agreement was achieved among labs across all 6 virtual T/B-cell FXM challenges. All are predicted to be positive in the presence of multiple DSA. One lab noting low MFI for several challenges, accounted for the borderline predictions. For serum 204 vs. donor V1, 14 labs predicted the expected B-cell FXM to be positive and 3 predicted it to be negative. The discrepancies observed for this virtual donor-patient pair may be due to the strength of the DSA present (A32, 6542 ± 3326 and B62, 2252 ± 859) and the absence of class II DSA.

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Flow Cytometric Crossmatch

Cell 199 HLA genotype: A*01:01:01-A*23:01:01-B*42:01:01-B*50:01:01-C*06:02:01-C*17:01:01/DRB1*03:02:01-DRB1*07:01:01-DRB3*01:01:02, DRB4*01:03:01-DQA1*02:01:01, DQA1*04:01:01-DQB1*02:02, DQB1*04:02:01-DPA1*01:03:01-DPA1*02:01:01-DPB1*01:01:02-DPB1*04:02:01

Table 4. Individual Flow crossmatch results and DSA reported for Cell #199 vs. Serum #201

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	201	1.7	3			POSITIVE	A1	3	4.5			POSITIVE	DQ4	0.624	0.863	YES
615	201	238	348			POSITIVE	A*01:01(17043)	337	257			POSITIVE	DQB1*04:02(7232)	181	259	YES
792	201	57	204			POSITIVE	A1(18028)	107	187			POSITIVE	DQ4(6456)	241	285	YES
793	201	35-70 (weak pos), >70 (pos)	260			POSITIVE	A1(19,984)	90-150 (weak pos), >150 (pos)	139			POSITIVE	DQ4(7,775)	113	302	YES
1426	201	67	241			POSITIVE	A1(18925)	82	266			POSITIVE	DQ4(8093)	270	274	YES
2400	201	36	345			POSITIVE	A*01:01(16431)	48	303			POSITIVE	DQB1*04:02(7342)	292	341	YES
3224	201	70	244			POSITIVE		140	179			POSITIVE		138	166	YES
3753	201	50	272			POSITIVE	A1(23059)	100	260			POSITIVE	DQ4(4065)	248	270	YES
3808	201	294	259			POSITIVE Strong	A*01:01(8115)	449	180			POSITIVE Moderate	DQB1*04:02(2436)	225	336	YES
3966	201	20	252			POSITIVE		50	238			POSITIVE		175	294	NO
5130	201	61	559			POSITIVE	A1(12127)	77	592			POSITIVE		208	309	YES
5214	201	700	21762			POSITIVE	A1(38000)	1500	24927			POSITIVE	DQ4(14000)	1250	2060	YES
8001	201	50	301			POSITIVE	A1(21299)	100	245			POSITIVE	DQB1*04:02(8611)	227	339	YES
8058	201					NEGATIVE						POSITIVE				YES
8083	201	74	173			POSITIVE	A*01:01(19599)	108	121			POSITIVE	DQB1*04:02(8691)			YES
8103	201	544	295.6	1.2		Borderline	A*01:01	2146	1428.6	1.7		POSITIVE	DQB1*04:02	248.4	717.4	NO
8111	201	76	2483			POSITIVE	A1(16700)	114	2863			POSITIVE	DQ4(5000)	262	316	YES

Table 5. Individual Flow crossmatch results and DSA reported for Cell #199 vs. Serum #202

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	202	1.7	3			POSITIVE	A1,Cw6, Cw17	3	4			POSITIVE	DQ2	0.624	0.863	YES
615	202	238	367			POSITIVE	A*01:01(13375), C*06:02(7928), C*17:01(5450)	337	272			POSITIVE	DQB1*02:02(9763)	181	259	YES
792	202	57	246			POSITIVE	A1(15001), C6(9003), C17(5925)	107	235			POSITIVE	DQ2(11540)	241	285	YES
793	202	35-70 (weak pos), >70 (pos)	203			POSITIVE	A1(18,072), Cw6(11,404), C*17(9,641)	90-150 (weak pos), >150 (pos)	QNS			NT	DQ2(11,980)	113	302	YES
1426	202	67	248			POSITIVE	A1(19368), Cw6(12757), Cw17(10699)	82	263			POSITIVE	DQ2(17921)	270	274	YES
2400	202	36	357			POSITIVE	A*01:01(15848) C*06:02(9076) C*17:01(6883)	48	308			POSITIVE	DQB1*02:02(11805)	292	341	YES
3224	202	70	266			POSITIVE		140	194			POSITIVE		138	166	YES
3753	202	50	260			POSITIVE	A1(18908), C6(11313), C17(6480)	100	247			POSITIVE	DQ2(15114)	248	270	YES
3808	202	294	282			POSITIVE Strong	A*01:01(7025), C*06:02(4252), C*17:01(3059)	449	181			POSITIVE Moderate	DQB1*02:02(12173)	225	336	YES
3966	202	20	273			POSITIVE		50	228			POSITIVE		175	294	NO
5130	202	61	541			POSITIVE	A1(15370), Cw6(10306), Cw17(7315)	77	593			POSITIVE	DQB1*02:02(11060)	208	309	YES
5214	202	700	25673			POSITIVE	A1(36000), C6(27000), C17(16400)	1500	26523			POSITIVE	DQ2(30000)	1250	2060	YES
8001	202	50	333			POSITIVE	A1(19852), Cw6(11748), Cw17(8550)	100	279			POSITIVE	DQB1*02:02(12491)	227	339	YES
8058	202					NEGATIVE						POSITIVE				YES
8083	202	74	160			POSITIVE	A*01:01(16423), C*06:02(12355), C*17:01(8832)	108	117			POSITIVE	DQB1*02:02(25661)			YES
8103	202	544	295.6	1.2		Borderline	A*01:01,C*17:01	2146	1428.6	1.7		POSITIVE	DQB1*02:02	248.4	717.4	NO
8111	202	76	2650			POSITIVE	A1(14000) Cw6(8000) C*17(7000)	114	3914			POSITIVE	DQ2(14000)	262	316	YES

Table 6. Individual Flow crossmatch results and DSA reported for Cell #199 vs. Serum #203

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	203	1.7	3.3			POSITIVE	B42	3	3.7			POSITIVE	DR7, DQ4	0.624	0.863	YES
615	203	238	489			POSITIVE	A*42:01(19607), C*17:01(1737)	337	390			POSITIVE	DRB1*07:01(5169), DQB1*04:02(7233)	181	259	YES
792	203	57	376			POSITIVE	B42(23031), C17(1936)	107	363			POSITIVE	DQ4(7071), DR7(5517)	241	285	YES
793	203	35-70 (weak pos), >70 (pos)	442			POSITIVE	B42(24,151), C*17(3,625)	90-150 (weak pos), >150 (pos)	305			POSITIVE	DR7(6,654), DQ4(8,643)	113	302	YES
1426	203	67	378			POSITIVE	B42(22759), Cw17(2619)	82	418			POSITIVE	DQ4(7393), DR7(4959)	270	274	YES
2400	203	36	489			POSITIVE		48	450			POSITIVE		292	341	YES
3224	203	70	408			POSITIVE		140	352			POSITIVE		138	166	YES
3753	203	50	413			POSITIVE	B42(26976), C17(4234)	100	448			POSITIVE	DR7(5425), DQ4(6513)	248	270	YES
3808	203	294	413			POSITIVE Strong	B*42:01(14699), C*17:01(1908)	449	319			POSITIVE	DRB1*07:01(4868), DQB1*04:02(4357)	225	336	YES
3966	203	20	423			POSITIVE		50	390			POSITIVE		175	294	NO
5130	203	61	710			POSITIVE	B42(16414), Cw17(1950)	77	736			POSITIVE	DRB1*07:01(5662)	208	309	YES
5214	203	700	85685			POSITIVE	B42(47500), C17(6700)	1500	115015			POSITIVE	DR7(12600), DQ4(17250)	1250	2060	YES
8001	203	50	443			POSITIVE	B42(25532), Cw17(3219)	100	404			POSITIVE	DR7(6847), DQB1*04:02(8899)	227	339	YES
8058	203					NEGATIVE						POSITIVE				YES
8083	203	74	296			POSITIVE	B*42:01(30064), C*17:01(4074)	108	209			POSITIVE	DRB1*07:01(9879), DQB1*04:02(9063)			YES
8103	203	544	295.6	1.2		POSITIVE	B*42:01,C*02:02	2146	1428.6	1.7		POSITIVE	DQB1*04:02, DRB1*07:01, DQA1*01:03	248.4	717.4	NO
8111	203	76	9306			POSITIVE	B42(20400) C*17(2500)	114	11287			POSITIVE	DR7(4700) DQ4(6000)	262	316	YES

Table 7. Individual Flow crossmatch results and DSA reported for Cell #199 vs. Serum #204

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	204	1.7	2			POSITIVE	A23	3	11.2			POSITIVE	DR7, DQ2, DR52, DR53, DQA1*02	0.624	0.863	YES
615	204	238	216			POSITIVE	A*23:01(8082), C*06:02(2328), C*17:01(1263)	337	333			POSITIVE	DRB1*07:01(20101), DQB1*02:02(16819), DQA1*02:01(16819), DRB3*01:01(10489), DRB4*01:03(5513)	181	259	YES
792	204	57	53			NEGATIVE	A23(3451)	107	325			POSITIVE	DQ2(14426), DR7(14277), DR52(5738), DR53(3329)	241	285	YES
793	204	35-70 (weak pos), >70 (pos)	109			POSITIVE	A23/Aw4(5,648), Cw6(1,720), C*17(1,068)	90-150 (weak pos), >150 (pos)	147			POSITIVE	DR7(16,263), DRB3*01(7,609), DR53(4,319), DQA1*02(5,903), DQ2(15,968)	113	302	YES
1426	204	67	117.4			POSITIVE	A23(5942), Cw6(1467)	82	392			POSITIVE	DQ2(15632), DQA1*02(4785), DRB3*01:01(7343), DRB53(3633), DR7(15542)	270	274	YES
2400	204	36	211			POSITIVE	A*23:01(4870) C*06:02(1023)	48	414			POSITIVE	DRB1*07:01(14889) DRB3*01:01(6556) DRB4*01:03(3663) DQB1*02:02(14780) DQA1*02:01(8028)	292	341	YES
3224	204	70	113			POSITIVE		140	316			POSITIVE		138	166	YES
3753	204	50	159			POSITIVE	A23(3245)	100	422			POSITIVE	DR7(13793), DQ2(18091), DQA1*02(6337), DRB3*01(6050), DR53(3907)	248	270	YES
3808	204	294	123			POSITIVE moderate	A*23:01(2513)	449	232			POSITIVE	DRB1*07:01(9365), DRB3*01:01(2964), DRB4*01:01(1488), DQA1*02:01(10493), DQB1*02:02(10138)	225	336	YES
3966	204	20	153			POSITIVE		50	327			POSITIVE		175	294	NO

Table 7. Individual Flow crossmatch results and DSA reported for Cell #199 vs. Serum #204

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
5130	204	61	463			POSITIVE	Cw6(1478), Cw17(669)	77	718			POSITIVE	DRB4*01:03(4082), DRB3*01:01(7425), DQA1*02:01(13858), DQB1*02:02(13858), DRB1*07:01(16519)	208	309	YES
5214	204	700	6582			POSITIVE	A23(13000), C6(3000), C17(1700)	1500	86754			POSITIVE	DR7(35000), DRB3*01(17000), DR53(8300)	1250	2060	YES
8001	204	50	210			POSITIVE	A23(4038), Cw6(1363)	100	352			POSITIVE	DR7(16937), DQA1*02:01(18199- 4863), DQB1*02:02(18199), DRB3*01:01(6933), DRB4*01:03(4066)	227	339	YES
8058	204					NEGATIVE						POSITIVE				YES
8083	204	74	74			POSITIVE	A*23:01(6240)	108	170			POSITIVE	DRB1*07:01(17038), DR52(01:01)(6603) DR53(3031), DQA1*02:01(20735), DQB1*02:02(18753)			YES
8103	204	544	295.6	1.2		NEGATIVE		2146	1428.6	1.7		POSITIVE	DQB1*02:02, DRB1*07:01, DQA1*02:01, DRB4*01:03	248.4	717.4	NO
8111	204	76	818			POSITIVE	A23(5200) Cw6(1800) C*17(1200)	114	7316			POSITIVE	DR7(15000) DQ2(15000) DQA1*02(5000) DR53(3600) DRB3*01:01(6500)	262	316	YES

Cell 200 HLA genotype: A*02:01:01-A*32:01:01-B*27:05:02-B*44:02:01-C*02:02:02-C*05:01:01/

DRB1*11:01:01-DRB1*13:01:01-DRB3*01:01:02-DRB3*02:02:01-DQA1*01:03:01-DQA1*05:05:01-DQB1*03:01:01G-DQB1*06:03-DPA1*01:03:01-DPB1*03:01:01G-DPB1*04:01:01G

Table 8. Individual Flow crossmatch results and DSA reported for Cell #200 vs. Serum #201

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	201	2.1	0.98			NEGATIVE	No Class I DSA	3.6	6.2			POSITIVE	DQ6, DQA1*01	1.1	1.6	YES
615	201	258	-66			NEGATIVE	No Class I DSA	386	244			POSITIVE	DQB1*06:03(22163)	201	308	YES
792	201	57	-12			NEGATIVE	No Class I DSA	107	209			POSITIVE	DQ6(24273)	245	329	YES
793	201	35-70 (weak pos), >70 (pos)	9			NEGATIVE	No Class I DSA	90-150 (weak pos), >150 (pos)	331			POSITIVE	DQ6(19,486)	116	160	YES
1426	201	67	0			NEGATIVE	No Class I DSA	82	294			POSITIVE	DQ6(20101)	273	288	YES
2400	201	36	5			NEGATIVE	No Class I DSA	48	287			POSITIVE	DQB1*06:03(24250)	314	392	YES
3224	201	70				NEGATIVE		140	246			POSITIVE		142	169	YES
3753	201	50	0			NEGATIVE	No Class I DSA	100	315			POSITIVE	DQ6(18304)	262	267	YES
3808	201	294	-151			NEGATIVE	No Class I DSA	449	151			POSITIVE Moderate	DQA1*01:03(12098), DQB1*06:03(12098)	225	336	YES
3966	201	20	9			NEGATIVE		50	209			POSITIVE		185	378	NO
5130	201	61	206			NEGATIVE	No Class I DSA	77	624			POSITIVE	DQA1*01:03(16222), DQB1*06:03(15089)	225	328	YES
5214	201	700	0			NEGATIVE	No Class I DSA	1500	41914			POSITIVE	DQ6(39600)	1250	2060	YES
8001	201	50	-2			NEGATIVE	No Class I DSA	100	298			POSITIVE	DQB1*06:03(28545)	230	313	YES
8058	201					NEGATIVE						POSITIVE				YES
8083	201	74	192			POSITIVE	No Class I DSA	108	163			POSITIVE	DQB1*06:03(28929)			YES
8103	201	554	392	1.2		NEGATIVE	No Class I DSA	3236	2477.8	1.7		POSITIVE	DQB1*06:03, DQA1*01:03	162	758.2	NO
8111	201	76	0			NEGATIVE	No Class I DSA	114	5588			POSITIVE	DQ6(16000)	250	333	YES

Table 9. Individual Flow crossmatch results and DSA reported for Cell #200 vs. Serum #202

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	202	2.1	0.75			NEGATIVE	No Class I DSA	3.6	1			NEGATIVE	No Class II DSA	1.1	1.6	YES
615	202	258	-73			NEGATIVE	No Class I DSA	386	-124			NEGATIVE	No Class II DSA	201	308	YES
792	202	57	-9			NEGATIVE	No Class I DSA	107	-10			NEGATIVE	No Class II DSA	245	329	YES
793	202	35-70 (weak pos), >70 (pos)	0			NEGATIVE	No Class I DSA	90-150 (weak pos), >150 (pos)	0			NEGATIVE	No Class II DSA	116	160	YES
1426	202	67	0			NEGATIVE	No Class I DSA	82	0			NEGATIVE	No Class I DSA	273	288	YES
2400	202	36	-5			NEGATIVE	No Class I DSA	48	-30			NEGATIVE	No Class II DSA	314	392	YES
3224	202	70				NEGATIVE		140				NEGATIVE		142	169	YES
3753	202	50	0			NEGATIVE	No Class I DSA	100	0			NEGATIVE	No Class II DSA	262	267	YES
3808	202	294	-154			NEGATIVE	No Class I DSA	449	-156			NEGATIVE	No Class II DSA	225	336	YES
3966	202	20	0			NEGATIVE		50	0			NEGATIVE		185	378	NO
5130	202	61	205			NEGATIVE	No Class I DSA	77	300			NEGATIVE	No Class II DSA	225	328	YES
5214	202	700	0			NEGATIVE	No Class I DSA	1500	0			NEGATIVE	No Class II DSA	1250	2060	YES
8001	202	50	-9			NEGATIVE	No Class I DSA	100	-26			NEGATIVE	No Class II DSA	230	313	YES
8058	202					NEGATIVE						NEGATIVE				YES
8083	202	74	-12			NEGATIVE	No Class I DSA	108	-69			NEGATIVE	No Class II DSA			YES
8103	202	554	392	1.2		NEGATIVE	No Class I DSA	3236	2477.8	1.7		Borderline	No Class II DSA	162	758.2	NO
8111	202	76	0			NEGATIVE	No Class I DSA	114	0			NEGATIVE	No Class II DSA	250	333	YES

Table 10. Individual Flow crossmatch results and DSA reported for Cell #200 vs. Serum #203

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	203	2.1	10.5			POSITIVE	B27	3.6	19.4			POSITIVE	DQ6, DQA1*01	1.1	1.6	YES
615	203	258	499			POSITIVE	B*27:05(18260), C*02:02(2806)	386	434			POSITIVE	DQB1*06:03(15498)	201	308	YES
792	203	57	349			POSITIVE	B27(21567), C2(3275)	107	393			POSITIVE	DQ6(16207)	245	329	YES
793	203	35-70 (weak pos), >70 (pos)	465			POSITIVE	B27(22,198), Cw2(4,372)	90-150 (weak pos), >150 (pos)	497			POSITIVE	DQ6(16,944)	116	160	YES
1426	203	67	393			POSITIVE	B27(22642), Cw2(3759)	82	438			POSITIVE	DQ6(16742)	273	288	YES
2400	203	36	477			POSITIVE		48	430			POSITIVE		314	392	YES
3224	203	70	426			POSITIVE		140	422			POSITIVE		142	169	YES
3753	203	50	366			POSITIVE	C2(5316), B27(27434)	100	426			POSITIVE	DQ6(16427)	262	267	YES
3808	203	294	425			POSITIVE strong	B*27:05(17199), C*02:02(1798)	449	340			POSITIVE Strong	DQA1*01:03(7932), DQB1*06:03(7932)	225	336	YES
3966	203	20	415			POSITIVE		50	346			POSITIVE		185	378	NO
5130	203	61	734			POSITIVE	B27(16321), Cw2(3361)	77	805			POSITIVE	DQA1*01:03(15752), DQB1*06:03(15752)	225	328	YES
5214	203	700	98111			POSITIVE	B27(47500), C2(10500)	1500	187395			POSITIVE	DQ6(36700)	1250	2060	YES
8001	203	50	420			POSITIVE	B*27:05(24114), Cw2(4625)	100	376			POSITIVE	DQB1*06:03(19430)	230	313	YES
8058	203					POSITIVE						POSITIVE				YES
8083	203	74	99			POSITIVE	B*27:05(31015), C*02:02(3992)	108	119			POSITIVE	DQB1*06:03(16203)			YES
8103	203	554	392	1.2		POSITIVE	B*27:05, C*02:02,C*17:01	3236	2477.8	1.7		POSITIVE	DQB1*06:03, DQA1*01:03	162	758.2	NO
8111	203	76	13684			POSITIVE	B27(20500) Cw2(3800)	114	21054			POSITIVE	DQ6(14000)	250	333	YES

Table 11. Individual Flow crossmatch results and DSA reported for Cell #200 vs. Serum #204

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	204	2.1	2.3			POSITIVE	A2,A32,,B44,B27	3.6	4.99			POSITIVE	DR52	1.1	1.6	YES
615	204	258	288			POSITIVE	A*32:01(11196), B*44:02(6324), A*02:01(5793), B*27:05(5030), C*05:01(1418)	386	252			POSITIVE	DRB3*01:01(10489)	201	308	YES
792	204	57	102			POSITIVE	A32(4571), A2(3947), B44(3086), B27(2393)	107	177			POSITIVE	DR52(5738)	245	329	YES
793	204	35-70 (weak pos), >70 (pos)	311			POSITIVE	A2(5,824), Aw4/Bw4 multiple donor antigens [A32,B44,B*27:05](~6,500), Cw5(1,031)	90-150 (weak pos), >150 (pos)	341			POSITIVE	DRB3*01(7,739)	116	160	YES
1426	204	67	214			POSITIVE	A2(4751), A32(7929), B*27:05(3619), B44(4421), Bw4(15791)	82	272			POSITIVE	DRB3*01:01(7343)	273	288	YES
2400	204	36	139			POSITIVE	A*02:01(4163) A*32:01(5940) B*27:05(3090) B44:02(3817)	48	98			POSITIVE	DRB3*01:01(6556)	314	392	YES
3224	204	70	220			POSITIVE		140	225			POSITIVE		142	169	YES
3753	204	50	144			POSITIVE	A2(4134), A32(4242), B27(1792), B44(3159), Bw4(13398)	100	227			POSITIVE	DRB3*01(6050),	262	267	YES
3808	204	294	297			POSITIVE Strong	A*32:01(2847), B*44:02(2200), A*02:01(1970), B*27:05(1437)	449	221			POSITIVE	DRB3*01:01(2964)	225	336	YES
3966	204	20	228			POSITIVE		50	148			POSITIVE		185	378	NO
5130	204	61	528			POSITIVE	A2(4536), B44(3598), B27(3091)	77	633			POSITIVE	DRB3*01:01(7425)	225	328	YES
5214	204	700	17045			POSITIVE	A2(10000), A32(17600), B27:05(8200), B44(10500), C5(1800)	1500	35082			POSITIVE	DRB3*01(16700)	1250	2060	YES

Table 11. Individual Flow crossmatch results and DSA reported for Cell #200 vs. Serum #204

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
8001	204	50	309			POSITIVE	A32(5577), A*02:01(5428), B*44:02(3482), B*27:05(2641), Bw4(19433-1599)	100	283			POSITIVE	DRB3*01:01(6933)	230	313	YES
8058	204					NEGATIVE						NEGATIVE				YES
8083	204	74	129			POSITIVE	Bw4(15345), B*27:05(4048), B*44:02(5392)	108	160			POSITIVE	DR52(01:01)(6603)			YES
8103	204	554	392	1.2		Borderline	A*02:01, A*32:01, B*27:05,B*44:02, C*06:02, C*17:01	3236	2477.8	1.7		POSITIVE		162	758.2	NO
8111	204	76	2941			POSITIVE	A32(7200) A2(5400) B44(4400) B*27:05(3400) Bw4(5000) Cw5(1100)	114	6534			POSITIVE	DRB3*01:01(6500)	250	333	YES

Single Antigen

Table 12. Summary of Single Antigen results for Serum #201

Class I							
*** Serum 201 ***							
16 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
A1	16	100%	17892	18434	6087	8115	38000
A36	16	100%	13188	13902	4304	7050	28000
A80	16	100%	9412	9758	2988	2877	18000
A29	16	100%	7824	8344	3139	2196	17500
A3	16	100%	7548	8354	2470	3488	14500
A43	16	100%	5592	5901	1962	1631	11000
A26	16	100%	5089	5328	1781	1693	10600
A11	15	93%	11254	11990	3644	4089	23000
A25	12	75%	1614	1872	674	961	3200
A34	11	68%	1467	1595	585	752	2866
A66	10	62%	2447	2515	950	1000	4497
B63	9	56%	1621	1625	508	813	2427
A24	7	43%	1007	1347	499	975	2423
A6601	6	37%	2393	2685	1216	1000	4700
A1102	2	12%	7067	7066	2598	4469	9664
A1101	2	12%	6646	6646	2557	4089	9203
B78	2	12%	1581	1580	883	698	2463
B15	1	6%	3872	3872	-	3872	3872
B51	1	6%	1714	1714	-	1714	1714
A2403	1	6%	1482	1482	-	1482	1482
Cw15	1	6%	1431	1431	-	1431	1431
B7801	1	6%	1363	1363	-	1363	1363

Class II							
*** Serum 201 ***							
16 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DQ6	16	100%	21225	22669	6623	14074	40000
DQ5	16	100%	16697	18281	5929	9442	37000
DQ4	16	100%	7150	7266	2488	2436	14000
DQ9	8	50%	1573	1759	546	1052	2800
DQ8	8	50%	1486	1556	432	1048	2313
DQA1*01	4	25%	20108	19486	3764	14074	23657
DQA1*03	1	6%	7187	7187	-	7187	7187

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 13. Summary of Single Antigen results for Serum #202

Class I							
*** Serum 202 ***							
16 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
B73	16	100%	19994	20757	7047	11585	43000
Cw7	16	100%	18597	20803	6118	15086	39000
A1	16	100%	15360	16485	5949	7025	36000
A80	16	100%	14682	14616	4591	7108	28500
A25	16	100%	14653	15022	4655	8459	30700
Cw18	16	100%	14618	15633	5957	4091	34400
A34	16	100%	14130	14603	4392	7579	28500
A36	16	100%	13519	14553	4641	7990	29200
A26	16	100%	13189	13929	4499	7161	28000
A43	16	100%	12721	13250	4240	6070	26700
Cw6	16	100%	10810	11014	3824	4252	21700
Cw17	16	100%	7475	8485	3282	3059	16400
A11	15	93%	15722	17017	5342	9179	34000
Cw16	13	81%	2361	3088	1454	1286	6849
A6601	12	75%	14241	15204	5403	7320	31300
Cw8	8	50%	1823	2139	1052	1142	4496
A66	7	43%	15150	14186	3852	7320	19124
Cw12	4	25%	3129	3749	2280	1519	7222
A1102	2	12%	13171	13171	3992	9179	17163
A1101	2	12%	12447	12447	3477	8970	15924
A31	1	6%	1476	1476	-	1476	1476
B15	1	6%	1241	1241	-	1241	1241
B63	1	6%	1241	1241	-	1241	1241

Class II							
*** Serum 202 ***							
16 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DQ2	16	100%	19159	19779	4670	12591	30300
DQA1*05	1	6%	19039	19039	-	19039	19039
DQA1*02	1	6%	500	500	-	500	500

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 14. Summary of Single Antigen results for Serum #203

Class I							
*** Serum 203 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
B7	15	100%	23272	25179	8991	15650	50700
B67	15	100%	23172	24258	9085	13278	50600
B42	15	100%	22253	23119	7717	14699	47500
B73	15	100%	21243	21965	7587	14319	46100
B55	15	100%	21041	22445	7660	14470	46900
B56	15	100%	20163	21420	6942	13819	43900
B54	15	100%	15053	16742	5809	10652	34800
B48	15	100%	12000	12839	5853	4699	30600
B60	15	100%	11566	13832	5604	8195	29900
B61	15	100%	9274	10421	3884	6442	22600
B13	15	100%	8322	8989	2874	5878	17700
Cw1	15	100%	7021	7539	2589	2831	15500
Cw14	15	100%	4687	5171	1767	2687	9100
B47	15	100%	4207	5103	2405	2933	10999
Cw2	15	100%	3966	4265	1893	1798	10400
B81	14	93%	21606	24187	8311	17426	48800
B82	14	93%	18882	20912	6686	14814	41900
Cw17	14	93%	3049	3223	1397	1737	6700
B27	13	86%	21976	23592	7640	16321	47600
B2708	3	20%	19280	24740	10158	15964	38978
B2705	3	20%	17199	21130	7038	15177	31015
A6602	12	80%	6816	8320	3688	5445	18242
A66	6	40%	6854	7827	2237	5520	11598
A3	6	40%	1166	1305	427	787	2105
Cw9	3	20%	1699	1389	476	717	1752
B57	3	20%	1260	1087	322	637	1366
B8101	2	13%	17469	17468	1588	15881	19056
B40	2	13%	10002	10001	1123	8879	11124
Cw10	2	13%	1472	1471	28	1444	1499
B703	1	6%	14029	14029	-	14029	14029
B8201	1	6%	13579	13579	-	13579	13579
Cw3	1	6%	1699	1699	-	1699	1699
Cw18	1	6%	1181	1181	-	1181	1181

Class II							
*** Serum 203 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DR15	15	100%	19015	20896	6778	14840	40300
DQ6	15	100%	16903	18110	5617	11803	36700
DQ5	15	100%	15958	17007	5766	9194	36600
DR16	15	100%	15087	15779	6711	1063	33700
DQ4	15	100%	7588	8330	2945	4357	17300
DR7	15	100%	5517	6387	2401	4027	12600
DR1	15	100%	5394	5928	2330	3044	12800
DR9	15	100%	4799	5058	1844	2731	10400
DR51	14	93%	10593	11959	3844	7500	21000
DR103	14	93%	5503	6097	2400	3759	13000
DQA1*01	4	26%	15286	15766	3378	11803	20690
DR10	2	13%	982	982	308	674	1290
DQA1*03	1	6%	9856	9856	-	9856	9856
DQ8	1	6%	765	765	-	765	765
DQ9	1	6%	659	659	-	659	659

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 15. Summary of Single Antigen results for Serum #204

Class I							
*** Serum 204 ***							
16 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
B13	16	100%	15976	16667	4868	8392	31700
A68	16	100%	7772	8700	2544	5382	15800
A25	16	100%	7358	8120	3081	4599	18100
A69	16	100%	7133	7380	2577	3386	14700
A32	16	100%	6542	7254	3326	2847	17600
B57	16	100%	6416	7017	2746	3213	15700
B63	16	100%	6052	12521	22727	3527	99912
B59	16	100%	5598	6264	2625	2891	14600
A24	16	100%	5195	5724	2430	2639	13000
B51	16	100%	5122	5804	2313	2796	13100
B53	16	100%	5037	5573	2447	2464	13300
A2	16	100%	5008	5400	1651	1970	10100
A23	16	100%	4958	5505	2394	2513	13100
B77	16	100%	4676	5392	2104	3038	11600
B38	16	100%	4577	5215	2363	2676	12600
B58	16	100%	4477	5090	2201	2217	11900
B44	16	100%	4402	4949	1840	2573	10600
A34	16	100%	4098	3987	1058	2085	5850
A26	16	100%	3811	4040	1286	2197	6900
B62	16	100%	2252	2466	859	1294	4700
B49	15	93%	5811	6717	3058	2925	16000
B52	15	93%	4501	5024	2426	2034	12400
B37	15	93%	3827	3969	1531	1954	8382
B76	15	93%	2270	2399	784	1256	4100
B47	15	93%	2245	2459	938	1412	4800
B75	13	81%	2101	2363	722	1267	3573
A33	12	75%	4006	3937	1010	1711	6266
A66	10	62%	4062	4360	1458	2212	7034
B2705	10	62%	3504	3821	1737	1437	8300
Bw4	9	56%	13398	11827	5133	5000	19433
B27	9	56%	3781	3601	1298	1759	5335
Cw6	6	37%	1770	1842	426	1363	2459
Cw17	4	25%	1232	1634	807	1050	3026

Class II							
*** Serum 204 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DQ2	15	100%	18793	20378	5463	10493	34200
DR7	15	100%	15469	16331	5620	9365	35100
DR12	15	100%	6331	6892	2577	2779	14400
DR9	15	100%	5989	6139	1969	3309	11117
DR53	15	100%	3827	3914	1458	1488	8300
DQA1*02	12	80%	12348	12332	4970	5000	20735
DR52	10	66%	6810	6918	2219	2964	12128
DQA1*05	1	6%	17518	17518	-	17518	17518
DQ9	1	6%	6294	6294	-	6294	6294
DQ8	1	6%	5274	5274	-	5274	5274
DR3	1	6%	5168	5168	-	5168	5168
DQ7	1	6%	5013	5013	-	5013	5013
DQ4	1	6%	4930	4930	-	4930	4930
DR4	1	6%	2709	2709	-	2709	2709

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 16a. Individual laboratory results for Serum #201 - class I by One Lambda Single Antigen

	**** Serum 201 ****															
Ctr	A1	A26	A29	A3	A36	A43	A80	A11	A25	A34	A66	B63	A24	A6601	Other	Manufacturer
230	14233	5722	12782	11484	13902	8683	11489	13059	2567	2866	4497	2427	2423			One Lambda
615	17043	4689	7128	6921	11756	4920	8504	10838	1327	1342	2153	1320	1007		B78	One Lambda
792	18028	3974	6843	6807	12101	4481	8493	11153			1813					One Lambda
793	19095	5610	8724	8400	13610	6079	9895	11497	1378	1467	1544	1621	981			One Lambda
1426	19062	6490	8329	9467	13769	7058	12677	12910	1981	1446	3071	2344	1601		B78,B51	One Lambda
2400	16432	4293	6860	6390	12097	5563	8112	11254			2218					One Lambda
3224	17756	4778	6940	7396	11944	4851	8028	10991	1327	1177		1019	975	1879		One Lambda
3632	18106	4443	6576	8661	13277	4738	10256	12623								One Lambda
3753	23059	4253	8294	7335	15873	5621	8286	10397	2015	1537	2675	1652				One Lambda
5130	12127	5178	8148	7114	11041	5697	8929	11029	1551	1611				2485		One Lambda
5214	38000	10600	17500	14500	28000	11000	18000	23000	3200					4700		One Lambda
8001	21299	5763	9262	9317	14743	6588	10759	13722	1677	1709	2821	1836	1443			One Lambda
8103	16294	6549	9545	7121	13098	7017	10009		2980	2546				3750	B7801,A1101,A1102,Cw15 >	One Lambda
8111	16700	5000	7500	7700	12000	5100	8700	10500	1500	1100		1600	1000	2300		One Lambda
Avg	19088	5524.4	8887.9	8472.4	14087	6242.6	10153	12536	1955	1680	2599	1727	1347	3023		
Std Dev.S	6070	1669	2956	2208	4213	1787	2652	3319	674	576	922	475	538	1169		
MFI																
%CV	32%	30%	33%	26%	30%	29%	26%	26%	35%	34%	35%	28%	40%	39%		

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 16b. Individual laboratory results for Serum #201 - class I by Werfen

	**** Serum 201 ****															
Ctr	A1	A26	A29	A3	A36	A43	A80	A11	A25	A34	A66	B63	A24	A6601	Other	Manufacturer
3808	8115	1693	2196	3488	7050	1631	2877	4089	961	752	1000	813		1000	A1101,A1102	Werfen
8083	19599	6226	6877	11567	18173	5403	11115	12795			3360					Immucor
Avg	13857	3959.5	4536.5	7527.5	12612	3517	6996	8442	-	-	2180	-	-	-		
Std Dev.S	8120	3205	3310	5713	7865	2667	5825	6156	-	-	1669	-	-	-		
MFI																
%CV	59%	81%	73%	76%	62%	76%	83%	73%	-	-	77%	-	-	-		

Table 17a. Individual laboratory results for Serum #202 - class I by One Lambda Single Antigen

	**** Serum 202 ****																			
Ctr	A1	A25	A26	A34	A36	A43	A80	B73	Cw17	Cw18	Cw6	Cw7	A11	Cw16	A6601	Cw8	A66	Cw12	Other	Manufacturer
230	10090	15644	16269	16363	15101	14920	16513	11585	11540	14542	16312	16356	15183				15150	7222		
615	13375	11151	9991	11056	10685	10137	10805	17043	5450	13079	7928	15086	12819	1825	11781	1142	11781			One Lambda
792	15001	12342	10644	11897	11945	10965	11817	19518	5925	14418	9003	17859	14645	2342			11904			One Lambda
793	17548	15272	14656	14680	14542	14007	15003	21583	10458	17189	11948	23161	17228	3465	15849	1768				One Lambda
1426	19535	17455	15954	16293	16672	15821	16696	23024	10958	18668	13043	22849	18654	3977		3114	18499	1519	A31	One Lambda
2400	15848	13160	11592	13199	13123	11771	12970	20482	7058	14693	9248	16425	15722		13752					One Lambda
3224	15350	12823	11876	12674	12276	11335	11152	19952	7634	13572	8208	18946	14727	2361	13342	1315				One Lambda
3632	14467	12776	12887	12636	11901	11075	11789	20036	5533	13472	9061	18247	15431	2361	13989			4351		One Lambda
3753	18908	16512	13927	14839	15751	13244	14886	21998	6480	18594	11313	19953	18972	2613	15527		15527			One Lambda
5130	15370	14104	12632	13886	13066	12934	16514	12885	7315	15632	10306	16217	15844	2314	14840	1905				One Lambda
5214	36000	30700	28000	28500	29200	26700	28500	43000	16400	34400	21700	39000	34000	5200	31300					One Lambda
8001	19852	16465	15142	16302	15870	14822	15976	24434	8550	18651	11748	22736	19186	3252	17266	1878				One Lambda
8103	14977	15201	13491	14374	13914	12507	14477	18803	13583	16027	11812	21879		6849	14493	4496		1906	A1101,A1102,B63,B15	
8111	14000	12000	10500	11000	11000	10000	11000	18000	7000	12000	8000	17000	13000	2300	13000	1500				One Lambda
Avg	17166	15400	14112	14836	14646	13588	14864	20882	8849	16781	11402	20408	17339	3238	15922	2140	14572	3750		
Std																				
Dev.S	6014	4804	4470	4335	4588	4192	4503	7283	3293	5516	3766	6013	5415	1476	5315	1124	2810	2633		
MFI																				
%CV	35%	31%	32%	29%	31%	31%	30%	35%	37%	33%	33%	29%	31%	46%	33%	53%	19%	70%		

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 17b. Individual laboratory results for Serum #202 - class I by Werfen

	**** Serum 202 ****																			
Ctr	A1	A25	A26	A34	A36	A43	A80	B73	Cw17	Cw18	Cw6	Cw7	A11	Cw16	A6601	Cw8	A66	Cw12	Other	Manufacturer
3808	7025	8459	7161	7579	7990	6070	7108	12702	3059	4091	4252	16109	9179	1286	7320		7320		A1101,A1102	Werfen
8083	16423	16296	18150	18382	19819	15693	18660	27074	8832	11115	12355	31027	20677				19124			Immucor
Avg	11724	12378	12656	12981	13905	10882	12884	19888	5946	7603	8304	23568	14928	-	-	-	13222	-		
Std																				
Dev.S	6645	5542	7770	7639	8364	6804	8168	10163	4082	4967	5730	10549	8130	-	-	-	8347	-		
MFI																				
%CV	57%	45%	61%	59%	60%	63%	63%	51%	69%	65%	69%	45%	54%	-	-	-	63%	-		

Table 18a. Individual laboratory results for Serum #203 - class I by One Lambda Single Antigen

	**** Serum 203 ****																							
Ctr	B13	B42	B47	B48	B54	B55	B56	B60	B61	B67	B7	B73	Cw1	Cw14	Cw2	B81	B82	Cw17	B27	A6602	A3	A66	Other	Manufacturer
230	11819	17365	6930	18735	18450	17698	20065	18995	14372	13278	17122	15407	6088	7729	5762	17659	19762	5106	16715		2105	11598		
615	7312	19067	2933	9777	12715	18016	17037	9672	7795	20303	20054	18383	6362	3594	2806	18449	15499	1737	19449	5520	787	5520	B57,Cw9	One Lambda
792	8703	23031	3644	12526	14623	21505	20540	11566	9310	24737	24396	21750	6835	4003	3275	22732	18926	1936	23178			6148		One Lambda
793	7417	22253	4246	12753	15053	21041	20163	12222	9027	23622	23101	21243	7219	4883	4197	22603	18837	3285	21877	7376	1041			One Lambda
1426	6678	22916	4201	13199	16065	21569	21794	12331	9508	23172	24506	22498	10055	5305	3966	22742	19201	2879	22809			7559	Cw10,Cw9	One Lambda
2400	NT																							One Lambda
3224	8322	21479	3226	10886	14139	20477	18987	10364	8831	22072	23272	20951	7021	4076	3507	20609	17941	1872	21976	6246				One Lambda
3632	8087	23301	2977	8116	15183	21965	20167	8195	7873	25098	25044	23766	8165	7639	2971	19405	18083		24521	5698				One Lambda
3753	10321	26976	5294	16981	18197	28058	26582	16014	12616	27465	27797	25905	8071	5016	5316	27390	25372	4234	27434	10003	1567	10003	B57	One Lambda
5130	8372	16414	3420	10491	14766	16602	16880	11095	9274	13406	15650	14319	6508	3597	3361	17426	16631	1950	16321	6831				One Lambda
5214	17700	47500	10100	30600	34800	46900	43900	29900	22600	50600	50700	46100	15500	9100	10400	48800	41900	6700	47600	18242				One Lambda
8001	10583	25532	4633	14504	16510	24754	23516	14377	11265	27185	26475	23408	7480	4687	4625	24953	21984	3219	25999	8271	1231			One Lambda
8103	7289	15801	4207	9258	10652	14830	13819	8879	7163	16022	16920	14683	6538	4415	4202			3727		5445			B8101,B8201,B2705 >	One Lambda
8111	6000	20400	3600	12000	14000	20400	18700	11000	8000	22000	22000	19400	6400	4000	3800	20500	17000	2500	20500	6800	1100			One Lambda
Avg	9123	23233	4570	13833	16550	22601	21704	13432	10587	23766	24387	22139	7865	5234	4476	23606	20928	3262	24032	8043	1305	8166		
Std																								
Dev.S	3057	8031	1983	5860	5863	8066	7372	5766	4152	9327	8761	8056	2529	1776	1980	8474	7095	1503	8139	3847	468	2579		
MFI																								
%CV	34%	35%	43%	42%	35%	36%	34%	43%	39%	39%	36%	36%	32%	34%	44%	36%	34%	46%	34%	48%	36%	32%		

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 18b. Individual laboratory results for Serum #203 - class I by Werfen

	**** Serum 203 ****																							
Ctr	B13	B42	B47	B48	B54	B55	B56	B60	B61	B67	B7	B73	Cw1	Cw14	Cw2	B81	B82	Cw17	B27	A6602	A3	A66	Other	Manufacturer
3808	5878	14699	6149	4699	11279	14470	13966	11124	6442	18218	19599	14441	2831	2687	1798	19056	14814	1908	18325	6138		6138	B2708,B2705,B703,B705	Werfen
8083	10362	30064	10999	8071	24710	28396	25185	21755	12239	36694	41063	27225	8023	6837	3992	36300	26819	4074		13271			B2708,B2705	Immucor
Avg	8120	22382	8574	6385	17995	21433	19576	16440	9341	27456	30331	20833	5427	4762	2895	27678	20817	2991	-	9705	-	-		
Std																								
Dev.S	3171	10865	3429	2384	9497	9847	7933	7517	4099	13065	15177	9040	3671	2934	1551	12193	8489	1532	-	5044	-	-		
MFI																								
%CV	39%	49%	40%	37%	53%	46%	41%	46%	44%	48%	50%	43%	68%	62%	54%	44%	41%	51%	-	52%	-	-		

Table 19a. Individual laboratory results for Serum #204 - class I by One Lambda Single Antigen

	**** Serum 204 ****																										
Ctr	A2	A23	A24	A25	A26	A32	A34	A68	A69	B13	B38	B44	B51	B53	B57	B58	B59	B62	B63	B77	B37	B47	B49	B52	B76	B75	A33
230	6879	7167	7648	10888	5572	10102	4863	12541	11184	20387	7520	6589	7920	7928	9469	7235	8411	3557	99912	7100	5796		9220	7015		3573	6266
615	6737	8082	9056	10773	4078	11196	5071	9208	7813	20446	7489	7039	8145	7883	9975	7272	8909	3098	9020	6857	4705	3191	9475	7424	3153	3432	4623
792	4611	3451	4070	5798	3095	4571	3721	6989	5807	16151	3368	3628	4086	3891	4992	3330	4287	1675	4727	3654	2839	1570	4762	3557	1700	1817	3395
793	5539	4881	5075	7770	4078	6497	3110	8786	8184	16720	4818	4507	5362	5473	6431	4867	5888	2173	6198	5317	3700	2494	6187	5012	2170	1863	4207
1426	4849	6134	5999	8290	3822	8217	2824	7352	7117	13634	5511	4688	5684	5681	7457	5560	6375	2333	7105	5066	4414	2764	7365	5066	2347	2043	3782
2400	4637	5034	4956	6471	2905	6120	3978	7389	5235	12776	3646	4404	4758	3779	6110	3930	5078	2226	5495	3967	3827	2245	5811	4501	2310	2272	3674
3224	4737	4630	5315	7100	3339	6587	4052	7433	6584	16643	4242	4262	4993	4826	5829	3958	5349	2060	5642	4125	3158	1839	5744	4123	1256	2101	
3632	4698	5074	5871	8050	3799	6011	4143	7844	6457	16714	4354	4118	5250	4873	6495	4354	5396	2277	6103	4651		2515	2925	2034	2536		
3753	4134	3245	2997	4806	2197	4242	2085	5848	4363	13398	2869	3159	3685	3147	4528	2884	3612	1294	4140	3038	1954	1412	4869	3302	1593	1752	3094
5130	5167	4865	5404	7115	3276	6634	4183	7689	6197	15801	4179	4233	4830	4542	6141	4270	5137	2195	5738	4154	3001	1843	5529	3938	2270		
5214	10100	13100	13000	18100	6900	17600	5500	15800	14700	31700	12600	10600	13100	13300	15700	11900	14600	4700	15800	11600	8382	4800	16000	12400	4100	3500	
8001	6415	4038	4741	7108	4384	5577	4779	9631	8826	19433	3828	3940	4878	4494	5830	4132	5079	1932	5625	4325	3158	1599	5466	4125	1941	2112	4340
8103	5819	4430	3881	6672	3563	5646	4207	8253	7149	15638	5168	5083	5850	5697	6684	5427	6274	2577	6815	5866	3947	2965			3132	2987	4011
8111	5400	5200	4700	7600	3900	7200	3200	7700	7300	13500	4800	4400	4800	5200	6400	4600	5800	2400	6000	4700	4100	2200	6400	4600	2200	2000	4000
Avg	5694	5667	5908	8324	3922	7586	3980	8747	7637	17353	5314	5046	5953	5765	7289	5266	6443	2464	13451	5316	4075	2418	6904	5161	2362	2454	4139
Std																											
Dev.S	1524	2509	2545	3263	1159	3464	937	2563	2620	4822	2502	1909	2408	2564	2844	2298	2740	847	25046	2144	1610	906	3250	2601	751	706	871
MFI																											
%CV	27%	44%	43%	39%	30%	46%	24%	29%	34%	28%	47%	38%	40%	44%	39%	44%	43%	34%	186%	40%	40%	37%	47%	50%	32%	29%	21%

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 19b. Individual laboratory results for Serum #204 - class I by Werfen

	**** Serum 204 ****																											
Ctr	A2	A23	A24	A25	A26	A32	A34	A68	A69	B13	B38	B44	B51	B53	B57	B58	B59	B62	B63	B77	B37	B47	B49	B52	B76	B75	A33	
3808	1970	2513	2639	4599	2935	2847	2240	5382	3386	8392	2676	2573	2796	2464	3213	2217	2891	1366	3527	3644	2061	1467	3249	2509	1563	1267	1711	
8083	4708	6240	6239	8788	6798	7023	5850	11370	7778	15345	6385	5964	6733	5991	7021	5509	7149	3593	8495	8215	4507	3986	7753	5764	3718		4148	
Avg	3339	4377	4439	6694	4867	4935	4045	8376	5582	11869	4531	4269	4765	4228	5117	3863	5020	2480	6011	5930	3284	2727	5501	4137	2641	1267	2930	
Std																												
Dev.S	1936	2635	2546	2962	2732	2953	2553	4234	3106	4917	2623	2398	2784	2494	2693	2328	3011	1575	3513	3232	1730	1781	3185	2302	1524	-	1723	
MFI																												
%CV	58%	60%	57%	44%	56%	60%	63%	51%	56%	41%	58%	56%	58%	59%	53%	60%	60%	64%	58%	55%	53%	65%	58%	56%	58%	-	59%	

Table 19a. Individual laboratory results for Serum #204 - class I by One Lambda Single Antigen, cont.

**** Serum 204 ****											
Ctr	A66	B2705	B27	Bw4	A6601	Cw18	Cw6	B46	Cw17	Other	Manufacturer
230	6604		5335	12939							
615	4719	5030	5030			3245	2328	1542	1263	Cw15,B82,B41,Cw2 >	One Lambda
792	3336		2393								One Lambda
793		3700		5000	4798	1710	1364	1051	1050		One Lambda
1426	4316		3781			2418	1739	1434			One Lambda
2400	3447		3227	5192							One Lambda
3224	3807	2960		16643		1550					One Lambda
3632			4627		4111						One Lambda
3753	2212		1792	13398	2212						One Lambda
5130		3091			3634	1992					One Lambda
5214		8300		13500	8500						One Lambda
8001	5056	2641		19433		1802	1363				One Lambda
8103		3607			4255	3075	2459	2310	3026	B8201,Cw15,Cw2,Cw5 >	One Lambda
8111		3400		5000	4700	2400	1800	1400	1200	Cw15,Cw5	One Lambda
Avg	4187	4091	3741	11388	4601	2274	1842	1547	1635		
Std											
Dev.S	1321	1846	1346	5647	1926	629	466	464	932		
MFI											
%CV	32%	45%	36%	50%	42%	28%	25%	30%	57%		

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 19b. Individual laboratory results for Serum #204 - class I by Werfen, cont.

**** Serum 204 ****											
Ctr	A66	B2705	B27	Bw4	A6601	Cw18	Cw6	B46	Cw17	Other	Manufacturer
3808	3078	1437	1759		3078					A203,A2403	Werfen
8083	7034	4048	4470	15345						A203,A2403	Immucor
Avg	5056	2743	3115	-	-	-	-	-	-		
Std											
Dev.S	2797	1846	1917	-	-	-	-	-	-		
MFI											
%CV	55%	67%	62%	-	-	-	-	-	-		

Table 20a. Individual laboratory results for Serum #201 - #202 class I by One Lambda Single Antigen

**** Serum 201 ****									**** Serum 202 ****			
Ctr	DQ4	DQ5	DQ6	DQ8	DQ9	DQA1*01	Other		Ctr	DQ2	Other	Manufacturer
230	10201	18292	18117	2313	2423	17962		One Lambda	230	18403		One Lambda
615	7232	16645	22163	1470	1638			One Lambda	615	19279		One Lambda
792	6456	16099	24273					One Lambda	792	22505		One Lambda
793	6202	16659	19892	1207	1500			OneLambda	793	16430	DQA1*02	OneLambda
1426	7341	18895	20286	1502	1508			One Lambda	1426	17515		One Lambda
2400	6790	16734	18544					One Lambda	2400	15229		One Lambda
3224	7019	17532	23657	1048	1052	23657		One Lambda	3224	20561		One Lambda
3632	7922	18476	27053					One Lambda	3632	24266		One Lambda
3753	4065	15131	18304					One Lambda	3753	15114		One Lambda
5130	7112	14708	16222					One Lambda	5130	20571		One Lambda
5214	14000	37000	40000	2100	2800			One Lambda	5214	30300		One Lambda
8001	8611	20169	28545	1712	1851			One Lambda	8001	24566		One Lambda
8103	7187	14932	22254			22254	DQA1*03		8103	19039	DQA1*05	
8111	5000	15000	16000	1100	1300			One Lambda	8111	14000		One Lambda
Avg									Avg			
Std Dev.S									Std Dev.S			
MFI									MFI			
%CV									%CV			
	7509.9	18305	22522	1557	1759	21291	-			19841		
	2367	5630	6288	462	584	2967	-			4448		
	32%	31%	28%	30%	33%	14%	-			22%		

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 20b. Individual laboratory results for Serum #201 - #202 class I by Werfen

**** Serum 201 ****									**** Serum 202 ****			
Ctr	DQ4	DQ5	DQ6	DQ8	DQ9	DQA1*01	Other		Ctr	DQ2	Other	Manufacturer
3808	2436	9442	14074			14074		Werfen	3808	12591		Werfen
8083	8691	26785	33333					Immucor	8083	26101		Immucor
Avg									Avg			
Std Dev.S									Std Dev.S			
MFI									MFI			
%CV									%CV			
	5563.5	18114	23704	-	-	-				19346		
	4423	12263	13618	-	-	-				9553		
	79%	68%	57%	-	-	-				49%		

Table 21a. Individual laboratory results for Serum #203 class I by One Lambda Single Antigen

	**** Serum 203 ****												
Ctr	DQ4	DQ5	DQ6	DR1	DR15	DR16	DR7	DR9	DR103	DR51	DQA1*01	Other	
230	11535	19277	21757	8635	19553	22759	10126	7782	9207	14530	20690		One Lambda
615	7588	15347	16145	5656	17771	14211	5169	4538	5445	10917		DR10,DQ8,DQ9	One Lambda
792	7548	16297	17109	5394	19365	15001	5517	4455	5063	11269			One Lambda
793	7377	15958	17295	5344	18343	15258	6003	4850	5675	9362			One Lambda
1426	7609	16962	16963	5580	20888	15244	5178	4973	6380	9300		DR10	One Lambda
2400	NT												
3224	5974	13480	13668	4181	16709	12984	4173	3457	4032	10268	13668		One Lambda
3632	6653	14443	14994	4638	20091	12667	4027	3552	4423	9239			One Lambda
3753	6513	15777	16427	3552	19015	15635	5425	3999	4241	8587			One Lambda
5130	8261	15964	16461	6082	16679	15087	5662	4799	5561	11703			One Lambda
5214	17300	36600	36700	12800	40300	33700	12600	10400	13000	21000			One Lambda
8001	9322	19280	20085	7137	22566	19085	6847	5635	6613	14480			One Lambda
8103	9856	15950	16903	4942	14840	1063	5644	5605			16903	DQA1*03	
8111	6000	13000	14000	4400	16000	12500	4700	3600	4400	7500			One Lambda
Avg	8579.7	17564	18347	6026	20163	15784	6236	5203	6170	11513	17087		
Std Dev.S	3068	6009	5932	2422	6409	7244	2444	1940	2575	3684	3515		
MFI %CV	36%	34%	32%	40%	32%	46%	39%	37%	42%	32%	21%		

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 21b. Individual laboratory results for Serum #203 - class I by Werfen

	**** Serum 203 ****												
Ctr	DQ4	DQ5	DQ6	DR1	DR15	DR16	DR7	DR9	DR103	DR51	DQA1*01	Other	
3808	4357	9194	11803	3044	17190	10965	4868	2731	3759	10121	11803		Werfen
8083	9063	17582	21349	7542	34144	20538	9879	5501	7568	19159			Immucor
Avg	6710	13388	16576	5293	25667	15752	7373.5	4116	5663.5	14640	-		
Std Dev.S	3328	5931	6750	3181	11988	6769	3543	1959	2693	6391	-		
MFI %CV	50%	44%	41%	60%	47%	43%	48%	48%	48%	44%	-		

Table 22a. Individual laboratory results for Serum #204 class I by One Lambda Single Antigen

**** Serum 204 ****								
Ctr	DQ2	DR12	DR53	DR7	DR9	DQA1*02	DR52	Other
230	NT							
615	25494	10765	5620	20101	11117	16819	12128	One Lambda
792	22596	5930	3483	14277	6365		6025	DQ4,DQ7,DQ8,DQ9
793	18488	7077	3827	16902	5392	5628	7972	One Lambda
1426	15781	6320	3936	15736	4842	7325	7762	One Lambda
2400	17347	6089	4034	15038	4994	8028	7016	One Lambda
3224	21260	6548	3401	15469	7439	13870		One Lambda
3632	23131	6331	2979	12887	6456	15065		One Lambda
3753	18091	5268	3907	13793	4385		6209	One Lambda
5130	18793	7690	4168	16519	8023			One Lambda
5214	34200	14400	8300	35100	3800	16000		One Lambda
8001	26750	7197	4240	16937	7582	18199	7334	One Lambda
8103	17518	4929	2709	10817	5989	10825	5168	DR3,DR4,DQA1*05
8111	15000	5700	3600	15000	4500	5000		One Lambda
Avg	21111	7250	4170	16814	6222	11676	7452	
Std Dev.S	5345	2593	1425	5928	1978	4923	2112	
MFI								
%CV	25%	36%	34%	35%	32%	42%	28%	

Blue = DSA against cell #199 only

Gold = DSA against cell #200 only

Green = DSA against cell #199 and #200

Table 22b. Individual laboratory results for Serum #204 - class I by Werfen

**** Serum 204 ****								
Ctr	DQ2	DR12	DR53	DR7	DR9	DQA1*02	DR52	Other
3808	10493	2779	1488	9365	3309	10493	2964	Werfen
8083	20735	6358	3031	17038	7894	20735	6603	Immucor
Avg	15614	4568.5	2260	13202	5601.5	15614	4783.5	
Std Dev.S	7242	2531	1091	5426	3242	7242	2573	
MFI								
%CV	46%	55%	48%	41%	58%	46%	54%	

Paper Challenge

Table 23. Individual Virtual crossmatch results for Serum #203 vs Donor# V1

Donor #V1: HLA A*30:02:01-A*32:01:01-B*08:01:01-B*15:01:01-C*03:03:01-C*07:01:01/DRB1*11:01:01-DRB1*11:01:02-DRB3*02:02:01G-DQA1*05:05:01-DQA1*05:11:01-DQB1*03:01:01G-DPA1*01:03:01G-DPB1*02:01:02G-DPB1*04:01:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Comments
230	203	25%	Negative	no Class I DSA	Negative	no Class II DSA	A*30:02 repeat mismatch with previous donor
792	203	90.69	Negative	no Class I DSA	Negative	no Class II DSA	
793	203	92	Negative	no Class I DSA	Negative	no Class II DSA	predict negative T cell flow cytometric crossmatch; weak reactivity to Cw9 ruled out as self; predict negative B cell flow cytometric crossmatch
910	203	92	Negative	no Class I DSA	Negative	no Class II DSA	
1426	203	93%	Negative	no Class I DSA	Negative	no Class II DSA	
1461	203	25	Negative	no Class I DSA	Negative	no Class II DSA	
2400	203		NT		NT		Inconclusive SAB result due to failed positive control.
3632	203	91	Negative	no Class I DSA	Negative	no Class II DSA	
3753	203	92%	Negative	no Class I DSA	Negative	no Class II DSA	
3808	203	0	Negative	no Class I DSA	Negative	no Class II DSA	No antibodies but A*30:02 is a repeat mismatch to first donor.
3966	203	97%	Negative	no Class I DSA	Negative	no Class II DSA	
5130	203	58%	Negative	no Class I DSA	Negative	no Class II DSA	
8001	203	92	Negative	no Class I DSA	Negative	no Class II DSA	DSA to C*07:01 could not be ruled out as it is not represented on our LSAB panel. DSA to DQA1*05:11 could not be ruled out as it is not represented on our LSAB panel.
8080	203	91	Negative	no Class I DSA	Negative	no Class II DSA	
8083	203	94.66	Negative	no Class I DSA	Negative	no Class II DSA	
8103	203	29	Borderline	Cw3 (1699)	Negative	no Class II DSA	LOW MFI
8110	203	92	Negative	no Class I DSA	Negative	no Class II DSA	Cw DSA below cut off

Table 24. Individual Virtual crossmatch results for Serum #203 vs Donor# V2

Donor #V2: HLA A*02:06:01-A*68:03:01-B*35:12:01-B*48:01:01-C*04:01:01-C*08:01:01/DRB1*04:07:01-DRB1*08:02:01-DRB4*01:03:01-DQA1*03:01:01-DQA1*04:01:01-DQB1*03:02:01G-DQB1*04:02:01-DPA1*01:03:01-DPB1*04:02:01

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Comments
230	203	25%	Positive	B48 (19040)	Positive	DQ4 (11955)	
792	203	90.69	Positive	B48 (12526)	Positive	DQ4 (7071)	
793	203	92	Positive	B48 (13682)	Positive	DQ4 (7562) DQ8 (967)	allele specific B*48:01 DSA (48:02 is negative in ExPlex, but this allele is not concordant with B48 antigen pending WHO update), predict positive T cell flow cytometric crossmatch; strong HLA class I DSA and moderate DQ DSA; predict positive B FCXM
910	203	92	Positive	B48 (13163)	Positive	DQ4 (7346)	
1426	203	93%	Positive	B48 (12975)	Positive	DQ4 (8037)	
1461	203	25	Positive	B48 (5077)	Positive	DQ4 (3501)	
2400	203		NT		NT		Inconclusive SAB result due to failed positive control. Inconclusive SAB result due to failed positive control.
3632	203	91	Positive	B48 (8116)	Positive	DQ4 (5959)	DSA to B48 and DQ4.
3753	203	92%	Positive	B48 (16981)	Positive	DQ4 (6513)	
3808	203		Positive	B48 (4699)	Positive	DQ4 (4357)	
3966	203	97%	Positive	B48 (19479)	Positive	DQ4 (8347) DQ8 (1203)	Unacceptable
5130	203	58%	Positive	B48 (10491)	Positive	DQ4 (7337)	
8001	203	92	Positive	B48 (14504)	Positive	DQ4 (8899)	DSA to A*68:03 and B*35:12 could not be ruled out as they are not represented on our LSAB panel. DSA to DRB1*08:02 and DRB1*04:07 could not be ruled out as they are not represented on our LSAB panel.
8080	203	91	Positive	B48 (13121)	Positive	DQ4 (7624)	
8083	203	94.66	Positive	B48 (8071)	Positive	DQ4 (9063)	DSA to class I antibodies
8103	203	29	Positive	B48 (9258)	Positive	DQ4 (6960)	high MFI
8110	203	92	Positive	B48 (21109)	Positive	DQ4 (9916)	

Table 25. Individual Virtual crossmatch results for Serum #203 vs Donor# V3

Donor #V3: HLA A*02:02:01-A*24:02:01-B*27:05:02-B*39:06:02-C*02:02:02-C*07:02:01/DRB1*04:04:01-DRB1*14:06:01-DRB3*01:01:02-DRB4*01:03:03-DQA1*03:01:01-DQA1*05:03:01-DQB1*03:02:01-DQB1*03:01:01-DPA1*01:03:01-DPB1*04:01:01G-DPB1*04:02:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Comments
230	203	25%	Positive	B27 (17364)	NT		
792	203	90.69	Positive	Cw2 (3275) B27 (21567)	Positive	No class II DSA	Positive due to Class I DSA
793	203	92	Positive	Cw2 (4333) B27 (22650)	Positive	DQ8 (967)	strong HLA class I DSA, whole B27 antigen positive; predict positive T FCXM; strong HLA class I DSA and weak DQ; predict positive B FCXM
910	203	92	Positive	Cw2 (3678) B27 (21260)	Positive	No class II DSA	
1426	203	93%	Positive	Cw2 (3759) B27 (22655)	Positive	No class II DSA	
1461	203	25	Positive	Cw2 (2164) B27 (17157)	Positive	No class II DSA	
2400	203		NT		NT		Inconclusive SAB result due to failed positive control.
3632	203	91	Positive	Cw2 (2971) B27 (22524)	Positive	No class II DSA	DSA to B27 and Cw2. No Class II DSA, but FXM will be most likely positive due to Class I DSA. Do not recommend moving forward.
3753	203	92%	Positive	Cw2 (5316) B27 (27434)	Negative	No class II DSA	
3808	203		Positive	B2705 (17199) Cw2 (1798)	Positive	No class II DSA	Positive due to the presence of Class I antibodies
3966	203	97%	Positive	Cw2 (7120) B27 (23852)	Positive	DQ8 (1203)	Unacceptable
5130	203	58%	Positive	Cw2 (3361) B27 (16321)	Positive	No class II DSA	Positive due to Class I DSAs
8001	203	92	Positive	Cw2 (4625) B27 (24114)	Positive	No class II DSA	DSA to A*02:02 and B*39:06 could not be ruled out as they are not represented on our LSAB panel. DSA to DRB1*14:06 could not be ruled out as it is not represented on our LSAB panel.
8080	203	91	Positive	Cw2 (4411) B27 (21409)	Positive	No class II DSA	Patient has Class I DSA
8083	203	94.66	Positive	Cw2 (3992) B27 (31015)	Positive	No class II DSA	DSA to class I antibodies
8103	203	29	Positive	B2705 (15177) Cw2 (4202)	Negative	No class II DSA	high MFI
8110	203	92	Positive	B2705 (26649) Cw2 (8803)	Negative	No class II DSA	

Table 26. Individual Virtual crossmatch results for Serum #204 vs Donor# V1

Donor #V1: HLA A*30:02:01-A*32:01:01-B*08:01:01-B*15:01:01-C*03:03:01-C*07:01:01/DRB1*11:01:01-DRB1*11:01:02-DRB3*02:02:01G-DQA1*05:05:01-DQA1*05:11:01-DQB1*03:01:01G-DPA1*01:03:01G-DPB1*02:01:02G-DPB1*04:01:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Comments
230	204	38%	Positive	A32 (10103) B62 (3270)	Positive	no Class II DSA	Due to class I
792	204	99.04	Positive	A32 (4571) B62 (1675)	Positive	no Class II DSA	Positive due to Class I DSA
793	204	98.3	Positive	A32 (7813) B8 (562) B62 (2424)	Positive	no Class II DSA	predict positive T cell flow cytometric crossmatch; serum has Bw4 reactivity, excluded B*15:24(B62-Bw4) from analysis; multiple weak-moderate HLA class I DSA, likely weak positive B cell flow cytometric crossmatch
910	204	99%	Positive	A32 (5271) B62 (2013)	Positive	no Class II DSA	Bw4 reactivities
1426	204	93%	Positive	A32 (7989) B62 (2159)	Positive	no Class II DSA	
1461	204	40	Positive	A32 (2690) B8 (685) B62 (1308)	Positive	no Class II DSA	
2400	204	99	Positive	A32 (5940) B62 (2086)	Positive	no Class II DSA	Unacceptable due to positive T-Cell crossmatch
3632	204	98	Positive	A32 (6011) B62 (2277)	Positive	no Class II DSA	No Class II DSA, but FXM will be most likely positive due to Class I DSA. Do not recommend moving forward.
3753	204	99%	Positive	A32 (4242) B62 (1294)	Negative	no Class II DSA	
3808	204		Positive	A32 (2847) B62 (1366)	Positive	no Class II DSA	Positive due to the presence of Class I antibodies
3966	204	99%	Positive	A32 (7933) B62 (3690)	Positive	no Class II DSA	Unacceptable
5130	204	91.80%	Positive	A32 (6634)	Positive	no Class II DSA	Positive due to Class I DSAs
8001	204	98	Positive	A32 (5577) B62 (1932)	Positive	no Class II DSA	DSA to C*07:01 could not be ruled out as it is not represented on our LSAB panel; DSA to DQA1*05:11 cannot be ruled out as it is not represented on our LSAB panel.
8080	204	98	Positive	A32 (10411) B62 (3178)	Positive	no Class II DSA	Patient has Class I DSA
8083	204	97.42	Positive	A32 (7023) B62 (3593)	Positive	no Class II DSA	DSA to class I antibodies
8103	204	51	Borderline	A32 (5646) B15 (2577) B62 (2577)	Negative	no Class II DSA	Low Class I MFI
8110	204	98	Positive	A32 (9252) B62 (3206)	Negative	no Class II DSA	

Table 27. Individual Virtual crossmatch results for Serum #204 vs Donor# V2

Donor #V2: HLA A*02:06:01-A*68:03:01-B*35:12:01-B*48:01:01-C*04:01:01-C*08:01:01/DRB1*04:07:01-DRB1*08:02:01-DRB4*01:03:01-DQA1*03:01:01-DQA1*04:01:01-DQB1*03:02:01G-DQB1*04:02:01-DPA1*01:03:01-DPB1*04:02:01

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Comments
230	204	32%	Positive	A68 (12541) A2 (8966)	Positive	DR53 (8687)	
792	204	99.04	Positive	A68 (6989) A2 (4611)	Positive	DR53 (3329)	
793	204	98.3	Positive	A68 (9403) A2 (6549)	Positive	DR53 (3611)	multiple HLA class I DSA; A*68:03 not on panel but predicted + based on 68:01/02+; predicted positive T FCXM; multiple HLA class I DSA and moderate class II; predict positive B FCXM
910	204	99	Positive	A68 (7806) A2 (5158)	Positive	DR53 (3718)	Bw4 reactivities, No bead for A68:03 but all A68 are positive
1426	204	93%	Positive	A68 (7223) A2 (5004)	Positive	DR53 (3429)	A*68:03 Possible 127K epitope
1461	204	40	Positive	A68 (4786) A2 (1875)	Positive	DR53 (1127)	
2400	204	99	Positive	A68 (7487) A2 (4754)	Positive	DR53 (3663)	Unacceptable due to positive T-Cell crossmatch. Unacceptable due to positive B-Cell crossmatch
3632	204	98	Positive	A68 (7844) A2 (4698)	Positive	DR53 (2979)	DSA to A2 and DR53. Possible A68 Donor is A*68:03 but no allele for that in the SAB panel.
3753	204	99%	Positive	A68 (5848) A2 (4134)	Positive	DR53 (3907)	
3808	204		Positive	A68 (5382) A2 (1970)	Positive	DR53 (1488)	
3966	204	99%	Positive	A68 (12538) A2 (8154)	Positive	DR53 (4138)	Unacceptable, No bead A*68:03 in SAB PANEL
5130	204	91.80%	Positive	A2 (5167)	Positive	DRB4*01:03 (4082)	
8001	204	98	Positive	A68 (9631) A2 (6415)	Positive	DR53 (4066)	DSA to B*35:12 cannot be ruled out as it is not represented on our LSAB panel. DSA to allele A*68:03 could not be ruled out, however, MFI on other allele of A*68:02 is 9631 so reported as DSA. DSA to DRB1*04:07 and DRB1*08:02 could not be ruled out as they are not represented on our LSAB panel.
8080	204	98	Positive	A68 (11769) A2 (7878)	Positive	DR53 (5664)	
8083	204	97.42	Positive	A68 (11370) A2 (4708)	Positive	DR53 (3031)	No bead for A*68:03 used bead A*68:02. No bead for A*02:06 used bead A*02:02; DSA to class I antibodies
8103	204	51	Positive	A2 (5819) Cw4 (1324)	Borderline	DR53 (2709)	high class I MFI; low MFI
8110	204	98	Positive	A68 (10372) A2 (6733)	Positive	DR53 (6873)	

Table 28. Individual Virtual crossmatch results for Serum #204 vs Donor# V3

Donor #V3: HLA A*02:02:01-A*24:02:01-B*27:05:02-B*39:06:02-C*02:02:02-C*07:02:01/DRB1*04:04:01-DRB1*14:06:01-DRB3*01:01:02-DRB4*01:03:03-DQA1*03:01:01-DQA1*05:03:01-DQB1*03:02:01-DQB1*03:01:01-DPA1*01:03:01-DPB1*04:01:01G-DPB1*04:02:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell		
					prediction	Class II DSA(MFI)	Comments
230	204	25	Positive	A24 (6659) A2 (6879) B27 (4722)	Positive	NT	
792	204	99.04	Positive	A24 (3111) A2 (4611) B27 (2393)	Positive	DR52 (5738) DR53 (3329)	
793	204	98.3	Positive	Bw4 (4000) A24 (5742) A2 (6305)	Positive	DR52 (7318) DR53 (3611)	Bw4 reactive, A24 likely Aw4, B*27:05 likely Bw4--reported all though redundant; donor A*02:02 predicted + per A*02:05 positive; B*39:06 empirically ruled out on ExPlex; DR52=DRB3*01 allele specific DSA; Bw4 DSA plus 2 moderate DRB345 DSA; predict positive B FCXM
910	204	99	Positive	A24 (3619) A2 (4940) B27 (2665)	Positive	DR52 (6354) DR53 (3718)	Bw4 reactivities. No bead for A*02:02 but all A2 are positive
1426	204	93%	Positive	A24 (5155) A2 (4751) B27 (3619)	Positive	DR52 (7343) DR53 (3429)	A*02:02 Possible 127K epitope
1461	204	40	Positive	A24 (2421) A2 (1710) B27 (1507)	Positive	DR52 (2206) DR53 (1127)	
2400	204	99	Positive	A24 (4258) A2 (4163) B27 (3090)	Positive	DR52 (6556) DR53 (3663)	Unacceptable due to positive T-Cell crossmatch. Unacceptable due to positive B-Cell crossmatch.
3632	204	98	Positive	A24 (4828) A2 (4698) B27 (3289)	Positive	DR52 (5910) DR53 (2979)	DSA to A24, B27, DR52 and DR53. Possible DSA to A2, donor is A*02:02 and there is no bead in our panel for it.
3753	204	99%	Positive	Bw4 (13398) A24 (2997) A2 (4134) B27 (1792)	Positive	DR52 (6050) DR53 (3907)	DSA to DRB3*01 (MFI=6050)
3808	204		Positive	A24 (2639) A2 (1945) B27 (1437)	Positive	DR52 (2964) DR53 (1488)	
3966	204	99%	Positive	A24 (6326) A2 (8154) B27 (4426)	Positive	DR52 (7461) DR53 (4138)	Unacceptable, No bead A*02:02 in SAB PANEL
5130	204	91.80%	Positive	A24 (4031)	Positive	DRB4*01:03 MFI: 4082, DRB3*01:01 MFI: 7425	

Table 28. Individual Virtual crossmatch results for Serum #204 vs Donor# V3

Donor #V3: HLA A*02:02:01-A*24:02:01-B*27:05:02-B*39:06:02-C*02:02:02-C*07:02:01/DRB1*04:04:01-DRB1*14:06:01-DRB3*01:01:02-DRB4*01:03:03-DQA1*03:01:01-DQA1*05:03:01-DQB1*03:02:01-DQB1*03:01:01-DPA1*01:03:01-DPB1*04:01:01G-DPB1*04:02:01G

Ctr	Patient	% CPRA	Virtual T Cell	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Comments
			Prediction				
8001	204	98	Positive	Bw4 (19433) A24 (3783) A2 (6415) B27 (2641)	Positive	DR52 (6933) DR53 (4066)	DSA to B*39:06 could not be ruled out as it is not represented on our LSAB panel. DSA to allele A*02:02 could not be ruled out, however, MFI on other allele of A*02:06 is 6415 so reported as DSA. DSA to Bw4 (MFI ranges from 19433-1599) DSA. DSA to DRB1*14:06 could not be ruled out as it is not represented on our LSAB panel.
8080	204	98	Positive	A24 (7108) A2 (7878) B27 (5476)	Positive	DR52 (11044) DR53 (5664)	
8083	204	97.42	Positive	B2705 (4048) Bw4 (15345) A24 (6239) A2 (4708)	Positive	DR52 (6603) DR53 (3031)	DSA to class I antibodies
8103	204	51	Borderline	Cw2 (1407) A24 (3881) B27 (3605)	Borderline	DR53 (2709)	low MFI
8110	204	98	Positive	B2705 (4293) A24 (6957) A2 (6733)	Positive	DR52 (7882) DR53 (6873)	

Table 29. Individual Cutoff values and Pretreatment - Exchange 34

Ctr	Locus	Pos Cutoff Value	Locus	Pos Cutoff Value	Manufacturer	Kit type	Sera pretreatment
230	A	4500	DRB1	4500	One Lambda	LABScreen Single Antigen/Explex	None
	B	4500	DRB3/4/5	4500			
	C	10000	DQA1	4500			
	Class I		DQB1	4500			
			DPB1	10000			
			Class II				
615	A		DRB1		One Lambda	LABScreen Single Antigen	EDTA
	B		DRB3/4/5				
	C		DQA1				
	Class I	500	DQB1				
			DPB1				
			Class II	500			
792	A	1500	DRB1	1500	One Lambda	LABScreen Single Antigen	FBS/EDTA
	B	1500	DRB3/4/5	1500			
	C	1500	DQA1	1500			
	Class I	1500	DQB1	1500			
			DPB1	1500			
			Class II	1500			
793	A		DRB1		One Lambda	LABScreen Single Antigen/Explex	EDTA
	B		DRB3/4/5				
	C		DQA1				
	Class I	1000	DQB1				
			DPB1				
			Class II	1000			
1426	A	1000	DRB1	1000	One Lambda	LABScreen Single Antigen	Presorb
	B	1000	DRB3/4/5	1000			
	C	1000	DQA1	1000			
	Class I	1000	DQB1	1000			
			DPB1	1000			
			Class II	1000			
2400	A	2000	DRB1	2000	One Lambda	LABScreen Single Antigen	EDTA
	B	2000	DRB3/4/5	2000			
	C	2000	DQA1	2000			
	Class I	2000	DQB1	2000			
			DPB1	2000			
			Class II	2000			

Table 29. Individual Cutoff values and Pretreatment - Exchange 34

Ctr	Locus	Pos Cutoff Value	Locus	Pos Cutoff Value	Manufacturer	Kit type	Sera pretreatment
3224	A	1000	DRB1	1000	One Lambda	LABScreen 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	LABScreen Single Antigen/Explex	EDTA
	B	2000	DRB3/4/5	2000			
	C	2000	DQA1	2000			
	Class I		DQB1	2000			
			DPB1	5000			
			Class II				
3753	A	1000	DRB1	1000	One Lambda	LABScreen Single Antigen	DTT
	B	1000	DRB3/4/5	1000			
	C	2000	DQA1	1000			
	Class I	1000	DQB1	1000			
			DPB1	2000			
			Class II	1000			
3808	A		DRB1		Werfen	LIFECODES® Single Antigen Assays (LSA)	None
	B		DRB3/4/5				
	C		DQA1				
	Class I	750	DQB1				
			DPB1				
			Class II	750			
5130	A	1500	DRB1	1500	One Lambda	LABScreen Single Antigen	EDTA
	B	1500	DRB3/4/5	1500			
	C	1500	DQA1	1500			
	Class I	1500	DQB1	1500			
			DPB1	1500			
			Class II	1500			
5214	A	3000	DRB1	3000	One Lambda	LABScreen Single Antigen	EDTA
	B	3000	DRB3/4/5	3000			
	C	3000	DQA1	3000			
	Class I		DQB1	3000			
			DPB1	3000			
			Class II				

Table 29. Individual Cutoff values and Pretreatment - Exchange 34

Ctr	Locus	Pos Cutoff Value	Locus	Pos Cutoff Value	Manufacturer	Kit type	Sera pretreatment
8001	A		DRB1		One Lambda	LABScreen Single Antigen	FBS & EDTA
	B		DRB3/4/5				
	C		DQA1				
	Class I	1000	DQB1				
			DPB1				
			Class II	1000			
8083	A		DRB1		Immucor	LIFECODES® Single Antigen Assays (LSA)	EDTA
	B		DRB3/4/5				
	C		DQA1				
	Class I		DQB1				
			DPB1				
			Class II				
8103	A		DRB1		One Lambda	LABScreen Single Antigen	
	B		DRB3/4/5				
	C		DQA1				
	Class I		DQB1				
			DPB1				
			Class II				
8111	A	1000	DRB1	1000	One Lambda	LABScreen Single Antigen	EDTA
	B	1000	DRB3/4/5	1000			
	C	1000	DQA1	1000			
	Class I	1000	DQB1	1000			
				DPB1	1000		
				Class II	1000		