

# Report of the 14<sup>th</sup> Flow and Virtual Crossmatch Exchange August 14, 2018

Cells	79-80
Serum	81-84

For the 14<sup>th</sup> Flow and Virtual Crossmatch Exchange, Serum 77 (patient 1) and virtual donor V3 from Flow Crossmatch Exchange 13 (June 2018) were re-examined as serum 81 and cell 79. A comparison of virtual crossmatch (VXM) predictions (serum 77 vs. V3) against the physical flow crossmatch (FXM) (**serum 81 vs. cell 79**) are summarized in **Part 1** of this report.

**Part 2** examines the single antigen data for the 4 sera examined (**serum nos. 81 - 84**) in this study. **Part 3** summarizes the flow crossmatch results for 2 cells (**cell nos. 79 - 80**) against the 4 sera. Finally, in **Part 4**, the virtual crossmatch predictions for 4 potential donors (V1 - V4) against 2 sera (serum 83 and serum 84) are examined.

## Part 1

### Physical Flow Cytometric Crossmatch vs. Virtual Crossmatch

Among the 25 labs submitting VXM predictions for serum 77 vs. donor V3 in Exchange 13, 20 reported back physical T-cell FXM results and 19 reported back physical B-cell FXM results for the patient-donor pair (**serum 81 vs. cell 79**) in Exchange 14 (Table 1a). T-cell FXM results among labs were consistent with predictions, as 19 labs reported the T-cell FXM as positive in agreement with predictions (Table 1b). One lab reported the T-cell FXM as borderline. B-cell FXM results, on the other hand, were mixed

among labs. Twelve of the 16 labs predicting the B-cell FXM to be positive reported the actual B-cell FXM as positive, 2 reported it as negative, and 2 reported borderline results (Table 1b). Meanwhile, 2 of the 4 labs which had predicted the B-cell FXM to be negative (due to the absence of class II DSA), reported the actual B-cell FXM as positive (Table 1). The discordance illustrates the need to consider both class I and class II DSA when predicting the expected B-cell FXM, as both class I and class II antigens

**Table 1a. Summary of Physical Flow crossmatch results vs. Virtual Crossmatch predictions - Direct comparison**

Exchange 013					Exchange 014				
Virtual Crossmatch - Serum 77 (Patient 1) vs. Donor V3					Physical Flow Crossmatch - Serum 81 vs. Cell 79				
Donor	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Donor	Serum no.	#Labs	T-cell Results	B-cell Results
V3	77	20	POS(20)	POS(16) NEG(4)	79	81	20	POS(19) Borderline(1)	POS(14) NEG(2) Borderline(3) NT(1)
< 80% agreement									

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

		T-cell Virtual XM (Exchange 13)					B-cell Virtual XM (Exchange 13)		
		+	-	∅			+	-	∅
Physical Flow XM (Exchange 14)	+	19			Physical Flow XM (Exchange 14)	+	12	2	
	-					-	2		
	∅	1				∅	2	2	

+ = positive

- = negative

∅ = uncertain/not typed

n = number of labs

are expressed on B-cells.

Regarding DSA results on the replicate sera (serum 77), the reporting of specificities and strength were consistent across the 2 studies (Table 1c). In Exchange 13, anti-A23 and –Cw7 reactivity was reported, with respective median MFI = 14048 and 12571. In Exchange 14, anti-A23

(13879) and –Cw7 (14044) reactivity was re-reported against the donor. Although 3 labs reported the presence of weak class II DSA with their virtual B-cell predictions, all 20 labs in Exchange 14 reported no class II DSA were present against the donor for the physical B-cell FXM.

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

Cell #079 HLA Genotype: A\*02:01:01-A\*23:01:01-B\*44:03:01-B\*49:01:01-C\*04:01:01-C\*07:01:01-DRB1\*08:01-DRB1\*13:02:01-DRB3\*03:01-DQA1\*01:02:01G-DQA1\*04:01-DQB1\*04:02:01-DQB1\*06:04:01-DPB1\*02:01:02G-DPB1\*04:02:01G

Exchange 013					Exchange 014				
Virtual Crossmatch - Patient MX-077 vs. Donor V3					Physical Flow Crossmatch - Serum 81 vs. Cell 79				
Center	Virtual T-cell Prediction	Class I DSA(MFI)	Virtual B-cell Prediction	Class II DSA (MFI)	Center	T-Cell RESULT	Class I DSA(MFI)	B-Cell RESULT	Class II DSA(MFI)
206	Positive	A23(26176) Cw7(26428)	Positive	no DSA	206	Positive	A23(15681), Cw7(16448)	Borderline	no DSA
230	Positive	A23(18252) Cw7(17467)	Negative	no DSA	230	Positive	A23(18126)	Positive	no DSA
774	Positive	A23(13459) Cw7(10868)	Positive	no DSA	774	Positive	A23(8707)	Negative	no DSA
792	Positive	Cw4(3983) A23(14154)	Positive	DR52 (638)	792	Positive	Cw7(14899), A23(13087)	Positive	no DSA
836	Positive	Cw4(4143) A23(18470) Cw7(18849)	Positive	no DSA	836	Positive	A*23:01(15732), C*04:01(2709), C*07:01(15224)	Borderline	no DSA
1160	Positive	Cw4(3465) A23(13258) Cw7(11791)	Positive	no DSA	1160	Positive	A23(9916), Cw4(2118)	Positive	no DSA
2400	Positive	Cw4(3028) A23(12811) Cw7(11206)	Positive	no DSA	2400	Positive	A23(14379)	Positive	no DSA
3224	Positive	Cw4(4720) A23(19679) Cw7(15735)	Positive	no DSA	3224	Positive	A23(14102), Cw4 (1565), Cw7(14954)	Positive	no DSA
3753	Positive	Cw4(2465) A23(9568) Cw7(9319)	Positive	no DSA	3753	Positive	A23(10832), Cw7(10470)	Positive	no DSA
3966	Positive	Cw4(3744) A23(15618) Cw7(13500)	Negative	no DSA	3966	Positive		Positive	
4661	Positive	Cw4(189) B49(1121) B44(5418) A23(1610) Cw7(617)	Positive	DR8 (1) DQ4 (28) DPw2 (11) DP402 (35)	4661	Positive	A*2301(7079)	Positive	no DSA
4985	Positive	Cw4(3310) A23(11667)	Positive	no DSA	4985	Positive	A23(12948)	Positive	no DSA
8001	Positive	Cw4(2296) A23(15360)	Positive	no DSA	8001	Positive	A23(15567), Cw4(1179)	Positive	no DSA
8035	Positive	Cw4(3906) A23(16434) Cw7(13689)	Positive	DR52 (1374)	8035	Positive	A23(21338), Cw4(2607)	Positive	no DSA
8050	Positive	Cw4(2292) A23(10194) Cw7(10324)	Positive	no DSA	8050	Positive	A23(6751), Cw4(1513), Cw7(7364)	Negative	no DSA
8083	Positive	Cw4(3999) A23(17235)	Positive	no DSA	8083	Positive	A2301(13879)	Positive	no DSA
8096	Positive	B44(1850) A23(3022)	Negative	no DSA	8096	Positive		NT	
8103	Positive	A23(6359) Cw7(2539)	Negative	no DSA	8103	Borderline	A*23:01	Borderline	no DSA
8107	Positive	Cw4(4666) A23(18912) Cw7(16975)	Positive	no DSA	8107	Positive	A23(14688), Cw7(14434)	Positive	no DSA
8109	Positive	Cw4(3119) A23(15510) Cw7(13274)	Positive	no DSA	8109	Positive	A23(14933), Cw7(15824)	Positive	no DSA

## Part 2

Class I and class II Lumindex single antigen results for serum samples 81 - 84 are summarized in Tables 12 - 15 and individual results for each

participating laboratory are listed in Tables 16 –21.

### Antibody Identification

**Serum 81** was previously examined as serum 77 (Exchange 13). In this present study, reactivity to a number of 1C (A1, A23, A24, A36, A80), 5C (B73, B76, B18, B71, B75), 7C (B7, B8, B54, B55, B59, B67), and 10C (A25, A26, A34, A43) specificities was reported once again with  $\geq 90\%$  consensus. Median MFI values were also consistent across the 2 studies, ranging from 4671 to 20846 in Exchange 14, compared to 5460 to 22242 in Exchange 13. Additional reactivity to B65 (5661), Cw7 (14044), Cw18 (10849), and DQ2 (5243) was also reported again. Reactivity to DQ2 (5243) was reported by 20/20 labs.

Strong class I DSA were reported against cell 79 and cell 80. Against cell 79, the majority of labs (n=18) reported reactivity to A23 (13879). In addition, 7 labs also reported anti-Cw7 (14044) reactivity against cell 79. For cell 80, labs were in agreement in the reporting of strong anti-A34 (15114), -A11 (A1101)(12212), and -B75 (4967) reactivity against the cell. No class II DSA were reported against either cell 79 or cell 80.

**Serum 82** was found to be broadly reactive to a number of specificities, including A25, A32, B38, A23, A24, as well as reactivity to a number of 5C (B35, B46, B49, B50, B51, B52, B53, B57, B58, B62, B63, B71, B72, B75, B77), 7C (B13, B47, B56, B59), and 12C (B37, B41, B44, B45, B60, B61) specificities. Each were reported by  $\geq 90\%$  consensus. Class II antibodies reported by a consensus of  $\geq 90\%$  were DR11 (4738), DR17 (4372), DR18 (3755), and DR52 (12618).

Good agreement was achieved in the assignment of DSA against cell 79 and cell 80. Against cell 79, 18/18 labs reported anti-B49 (22933) and -DR52 (12618) reactivity. In addition, 17 labs reported anti-B44 (13282) reactivity and 15 reported additional reactivity to A23 (5558) against cell 79. Good agreement was also achieved in the reporting of class I DSA against cell 80, as 17/17 labs reported reactivity to B75 (15877). No class II DSA were reported against this cell.

#### Genotypes of cells provided by UCLA

##### Cell 79 (Caucasian) -

A\*02:01:01-A\*23:01:01-B\*44:03:01-B\*49:01:01-C\*04:01:01-C\*07:01:01/DRB1\*08:01-DRB1\*13:02:01-DRB3\*03:01-DQA1\*01:02:01G-DQA1\*04:01-DQB1\*04:02:01-DQB1\*06:04:01-DPB1\*02:01:02G-DPB1\*04:02:01G

##### Cell 80 (Filipino) -

A\*11:01-A\*34:01-B\*15:02-B\*15:02-C\*04:03-C\*08:01:01G/DRB1\*15:02-DRB5\*01:01-DQA1\*01:02:01G-DQB1\*05:02-DPB1\*01:01:01G-DPB1\*05:01:01G

For **serum 83**, reactivity to A2, A68, A69, Cw18, Cw2, Cw6, as well as reactivity to a number of 5C specificities (B57, B62, B63, B75, B76, B58, B72, B77, B46, B49, B50, B71) was reported by a consensus of  $\geq 90\%$ . MFI values for the specificities ranged from 3543 to 12945. Reactivity to DQ8 (7128), DR4 (12189), DQ9 (7180), and DR53 (4740) was also reported by  $\geq 90\%$  of labs.

Class I and class II DSA were reported against cell 79 and cell 80. Against cell 79, strong reactivity to A2 (12945) was reported in complete consensus. In addition, a few labs also reported weak anti-B49 (3755) and anti-Cw4 (3095) reactivity, along with weak anti-DQ4 (3185) and -DQ6 (4125) reactivity. Good agreement was also achieved in the reporting of class I DSA against cell 80, as 17/17 labs reported reactivity to B75 (5265). Additional weak anti-Cw4 (3095) reactivity was reported by a few labs. Less agreement was observed among labs in the reporting of class II DSA against cell 80, as 9 labs reported weak reactivity to DQ5 (2296), while 8 others indicated no class II DSA were present.

For **serum 84**, reactivity to Cw6, Cw15, and DQ7, as well as reactivity to a number of 5C specificities (B35, B45, B49, B50, B51, B62, B63, B56, B57, B62, B63, B71, B72, B75) was reported in complete consensus. MFI values for the specificities ranged from 9062 - 20551. In addition, reactivity to B18, B37, B77, Cw17, Cw18, Cw2, Cw4, and Cw5 was reported by 95% of labs, with MFI values for these specificities ranging from 3587 - 18829.

Good agreement was achieved among labs in the reporting of class I DSA against cell 79 and cell 80, as 18/18 labs reported strong anti-B49 (12626) reactivity against cell 79, and 17/17 labs reported strong anti-B75 (14005) reactivity against cell 80. Additional reactivity to Cw4 (11169) was also reported against each cell. No class II DSA were reported against either cell 79 or cell 80.

#### Conclusion:

All 4 sera in this study were strongly reactive to a broad range of specificities, including a number of 5C and C-locus specificities. Median MFI values for antibodies reported by 100% consensus ranged from 5265 - 22933 for class I antibodies and 3755 - 11386 for class II antibodies.

Good agreement was observed among labs in the reporting of class I DSA against cell 79 and cell 80, as MFI values for peak class I DSA ranged from 5265 to 22933 across the 4 sera. For class II, good agreement was observed when MFI values for class II DSA were  $> 4000$ . When DSA strength fell below 4000, greater variability was observed in the reporting of class II DSA as some labs reported DSA and others did not.

## Part 3

Flow cytometric crossmatch results for cell 79 and cell 80 against sera sample nos. 81 - 84 are summarized in Table 2. Individual results for each

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

### Flow Cytometric Crossmatch

**Cell 79.** Against serum samples 81 - 84, good agreement ( $\geq 80\%$ ) was achieved among labs in the reporting of T-cell FXM results. Each was reported as positive in the presence of strong class I DSA (MFI  $> 12000$ ). For the B-cell FXM, good agreement was observed for 3 out of 4 crossmatches. Each was reported as positive in the presence of class II and/or class I DSA. Against serum 81, however, no agreement was achieved as 14 labs reported the B-cell FXM as positive, 3 reported it as negative, and 3 reported it as borderline.

**Cell 80.** Good agreement ( $\geq 80\%$ ) was achieved for the T- and B-cell crossmatches against serum samples 81 - 84. All 4 T-cell crossmatches were reported as positive, as strong class I DSA (MFI  $> 14000$ ) were present in each case. Consequently, all 4 B-cell crossmatches were also reported as positive due to the class I DSA present, as only weak anti-DQ5 (2296) reactivity was detected in serum 83, and no class II DSA were reported against the 3 remaining sera.

**Table 2. Summary of Flow crossmatch results for Cell #079-#080 vs. Serum #081-#084**

Cell no.	Serum no.	#Labs	T-cell Results	B-cell Results	Cell no.	Serum no.	#Labs	T-cell Results	B-cell Results
79	81	22	POS(21) Borderline(1)	POS(14) NEG(3) Borderline(3) NT(2)	80	81	22	POS(21) NT(1)	POS(18) NEG(1) NT(3)
79	82	22	POS(22)	POS(20) NT(2)	80	82	22	POS(21) NT(1)	POS(18) NEG(1) NT(3)
79	83	22	POS(22)	POS(18) Borderline(1) NEG(1) NT(2)	80	83	22	POS(20) NEG(1) NT(1)	POS(17) Borderline(1) NEG(1) NT(3)
79	84	22	POS(22)	POS(19) Borderline(1) NT(2)	80	84	22	POS(21) NT(1)	POS(19) NT(3)

agreement  $< 80\%$

### Conclusion:

For each cell, the presence of strong class I DSA resulted in good agreement among labs in the reporting of the T-cell FXM. The same was true for the B-cell FXM. In the case of cell 79 against serum 84, and cell 80 against serum samples 81, 82, and 84, no class II DSA were detected. However, the B-cell FXM was still overwhelmingly reported as positive, as labs reported MFI values ranging from 12626 to 15877 for the class I DSA detected.

Interestingly, for the B-cell FXM of cell 79 against serum 84 in which no

agreement was achieved, we would have expected more labs to have reported a positive B-cell FXM. Although no class II DSA were detected against cell 79, multiple class I DSA (A23, Cw7) were reported, with respective MFI = 13879 and 14044. By comparison, for cell 79 vs. serum 84, no class II DSA were detected as well, only class I DSA to B49 (12626) and Cw4 (11169). All but 1 lab, reported the FXM as positive, with some labs reporting B-cell MCS values above 300. For cell 79 vs. serum 81, the majority of labs reported B-cell MCS values below 200.

## Part 4

Virtual crossmatch predictions for donor V1 - V4 against sera (patient) samples 83 and 84 are summarized in Table 3 and individual laboratory

predictions are listed in Tables 22 - 29. Fictional donor histories precede each patient-donor summary.

### Virtual Crossmatch Paper Challenge

For the virtual **T-cell crossmatch**, good agreement ( $\geq 80\%$ ) was observed for 7 out of 8 VXM pairs. Among the 7 pairs achieving good agreement, 6 were reported in complete consensus as positive in the presence of strong class I DSA (MFI > 7000). For **donor V3 vs. serum 84**, 22 labs predict the T-cell FXM to be positive, and 2 predict the results to be borderline. The 2 labs predicting borderline results, reported weak anti-58 (3404) reactivity against donor V3. Labs predicting the T-cell FXM to be positive reported stronger anti-B58 (9062) reactivity. Lastly for **donor V3 vs. serum 83**, no agreement was achieved among labs as 19 labs predict the T-cell FXM to be positive, 4 labs predict it to be borderline, and 1 lab predicts it to be negative. Weak class I DSA (MFI < 5000) were reported against the donor, which may have resulted in the variability observed in the predictions.

For the virtual **B-cell crossmatch**, good agreement ( $\geq 80\%$ ) was observed for 5 out of 8 VXM pairs. All 5 pairs achieving good agreement were

reported as positive in the presence of class I and class II DSA. For **donor V2 vs. serum 84**, 17 labs predict the B-cell FXM to be positive, while 6 predict it to be negative. No class II DSA were reported against donor V2, only class I DSA (B51, Cw2), with respective MFI = 17207 and 13496. For **donor V3 vs. serum 84**, 18 labs predict the B-cell FXM to be positive, 4 predict it to be negative and 2 predict borderline results, as anti-B58 (9062) and – Cw10 (6714) reactivity were reported against donor V3. All but 2 labs, reported there were no class II DSA against the donor. Finally for **donor V4 vs. serum 84**, 18 labs predict the B-cell FXM to be positive and 5 predict it to be negative. Once again, no class II DSA were detected against the donor, only class I DSA (B57, Cw4), with respective MFI = 9685 and 11169.

**Reminder:** both class I and class II DSA should be taken into consideration when predicting the expected physical B-cell FXM, as B-cells express both class I and class II antigens.

**Table 3. Summary of Virtual Crossmatch Exchange #014 results (Serum #083-#84 versus Donor V1 - V4)**

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	83	24	POS(24)	POS(22) NEG(2)	Unacceptable(24)	V2	83	24	POS(24)	POS(23) NEG(1)	Unacceptable(24)
V1	84	24	POS(24)	POS(21) NEG(1) NT(2)	Unacceptable(24)	V2	84	24	POS(24)	POS(17) NEG(6)	Unacceptable(24)

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
V3	83	24	POS(19) Borderline(4) NEG(1)	POS(23) NEG(1)	Unacceptable(23) Acceptable(1)	V4	83	24	POS(24)	POS(22) NEG(2)	Unacceptable(24)
V3	84	24	POS(22) Borderline(2)	POS(18) Borderline(2) NEG(4)	Unacceptable(24)	V4	84	24	POS(24)	POS(18) NEG(5)	Unacceptable(24)

consensus < 80%

# DSA Identification

## Patient 1 (Serum 83)

**Patient's fictional case history:** This individual is a 56 year old male being evaluated for his second transplant. The patient's HLA type is A1-A33-B8-B60-Cw7-Cw10/DR17-DR52-DQ2-DP1. The HLA typing of his first transplant is A1-A32-B8-B61-Cw7-Cw9/DR12-DR17-DR52-DQ2-DQ7-DP1.

For serum 83 (patient 1), class I and class II DSA were reported against **donor V1**, with labs reporting reactivity to A68 (7230), Cw6 (5515), and DQ6 (4125). Weak anti-B53 (2037) reactivity was also reported by a number of labs (n = 15). The presence of multiple class I DSA with MFI > 5000 resulted in 100% of labs to predict the T-cell FXM for this patient-donor pair to be positive. For B-cell predictions, 22 labs predict the expected B-cell FXM to be positive and 2 predict it to be negative. The 2 labs predicting a negative B-cell FXM, noted no class II DSA were present. In line with T-cell predictions, all 24 labs assess the renal transplant risk for this donor-patient pair unacceptable.

Multiple DSA were reported against **donor V2**, with labs detecting strong anti-A2 (12945) reactivity, along with reactivity to DQ6 (4125). A number of labs (n = 21) also reported additional anti-Cw2 (5418) and -B51 (2662) reactivity against the donor. In the presence of strong class I DSA, (MFI >12000), all 24 labs predict the expected T-cell FXM for this patient-donor pair to be positive. Good agreement was also observed for virtual B-cell predictions, as all but 1 lab predict the expected B-cell FXM to be positive. As a result of the positive T- and B-cell predictions, predicted renal transplant risk was assessed to be unacceptable in complete consensus.

Class I and class II DSA were detected against **donor V3**, as labs reported reactivity to B58 (4530) and DR4 (11386). Additional weak anti-B55 (1269) reactivity was reported by a few labs (n = 9) against the donor. As a consequence of the weak class I DSA present, no agreement was achieved for T-cell predictions for this patient-donor pair, as 19 labs predict the T-cell FXM to be positive, 4 predict it to be borderline, and 1 predicts it to be negative. By contrast, good agreement was achieved for B-cell predictions, as the presence of strong class II DSA (MFI > 11000) resulted in 23/24 labs to predict the expected B-cell FXM to be positive. The 1 lab predicting a negative B-cell FXM, reported there were no class II DSA present. For renal transplant risk, 23/24 labs assess the risk as unacceptable.

Strong anti-A2 (12945) and -B57 (6689) reactivity, along with weak anti -DQ6 (4125) reactivity was reported against **donor V4**. In addition, weak reactivity to Cw4 (3095) and B35 (2342) was reported by some labs. The presence of strong class I DSA (MFI >12000) resulted in 24/24 labs to predict the T-cell FXM for this patient-donor pair to be positive. Good agreement was achieved for B-cell predictions as well, as 22/24 predict the expected B-cell FXM to be positive. Predicted renal transplant risk assessment was reported as unacceptable in complete consensus.

### 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-DPB1\*04:01-DPB1\*17:01:01G

**Donor 2 (V2):** A\*02:01-A\*26:01-B\*27:05-B\*51:08-C\*02:02-C\*16:02-DRB1\*13:01:01-DRB1\*15:01:01-DRB3\*01:01:02-DRB5\*01:01:01-DQA1\*01:02:01G-DQA1\*01:03:01-DQB1\*06:02:01-DQB1\*06:03:01-DPB1\*04:01:01

**Donor 3 (V3):** A\*11:01:01-A\*33:03:01-B\*55:02:01-B\*58:01:01-C\*01:02:01-C\*03:02:02-DRB1\*03:01:01-DRB1\*04:05:01-DRB3\*02:02:01-DRB4\*01:03:01-DQA1\*03:03:01-DQA1\*05:01:01-DQB1\*02:01:01-DQB1\*04:01:01-DPB1\*05:01:01-DPB1\*14:01:01

**Donor 4 (V4):** A\*02:01:01-A\*03:01:01-B\*35:03:01-B\*57:03:01-C\*04:01:01-C\*07:01:02-DRB1\*13:02:01-DRB3\*03:01:01-DQA1\*01:02:01-DQB1\*06:04:01-DPB1\*04:01:01

## Patient 2 (Serum 84)

**Patient's fictional case history:** This individual is a 29 year female being evaluated for her first transplant. The HLA type of the patient is A1-A24-B8-Cw7/DR8-DR17-DR52-DQ2-DQ4-DP1-DP4. Patient has had 1 prior pregnancy. The HLA type of the child is A2-A24-B8-Cw7/DR17-DR18-DR52-DQ2-DP1-DP4.

For serum 84 (patient 2), strong class I and class II DSA were reported against **donor V1**, as labs reported anti-B53, -Cw6, and -DQ7 reactivity, with respective MFI = 16179, 14604, and 10938. In the presence of DSA with MFI > 10,000, good agreement was achieved for both T- and B-cell predictions for this patient-donor pair; 24/24 labs predict the T-cell FXM to be positive and 21/22 labs predict the expected B-cell FXM to be positive. The 1 lab predicting a negative B-cell FXM did not report class II DSA against the donor. Predicted renal transplant risk assessments were in line with predictions, with 100% of labs assessing the risk as unacceptable.

Class I DSA were reported against **donor V2**, with labs reporting anti-Cw2 (13496) reactivity. Possible DSA to B51 (17207) was also reported by some labs, however several other labs noted the donor's B\*51:08 is not on the SAB panel, and therefore cannot be assessed. No class II DSA were reported against donor V2. Virtual T-cell predictions were reported as positive by 100% of labs in the presence of strong class I (MFI > 17000) DSA. However, no agreement was achieved for B-cell predictions despite the strong class I DSA present, as 17 labs predict the expected B-cell FXM to be positive and 6 predict it to be negative. Predicted transplant risk assessments were reported as unacceptable in complete consensus.

Class I DSA (B58) were reported against **donor V3**, with median MFI = 9062. Additional reactivity to Cw10 (6714) was also reported by 17 labs. No class II DSA were reported against the donor. The T-cell predictions for this patient-donor pair were reported as positive by 22/24 labs. The remaining 2 labs predict the expected T-cell FXM to be borderline. By contrast, B-cell predictions were mixed among labs, as 18 labs predict the expected B-cell FXM to be positive, 4 predict it to be negative, and 2 predict it to be borderline. The 2 labs predicting borderline results, reported class I DSA with weaker (< 6000) MFI values. In line with T-cell predictions, renal transplant risk assessments were reported in complete agreement as unacceptable.

Against **donor V4**, only class I DSA (Cw4, B57) were reported, no class II. Respective MFI values for each were reported as 11169 and 9685. Labs were in agreement in the reporting of T-cell predictions, with all 24 labs predicting the T-cell FXM to be positive. However, there was a lack of agreement among B-cell predictions, as 18 labs predict the expected B-cell FXM to be positive and 5 predict it to be negative. Each of the labs predicting the B-cell FXM to be negative did so despite reporting the presence of strong class I DSA. For renal transplant risk assessment, each lab reported the risk as unacceptable.

## Conclusion

In this study, good agreement was observed among labs in the reporting of positive T-cell predictions when the MFI strength of the DSA was above 7000. As DSA strength decreased (MFI < 7000), labs tended to predict the expected T-cell FXM to be either borderline or negative. For B-cell predictions, however, variability was still observed among labs, even when the class I DSA present was strong (MFI > 9000). This is likely due to a misunderstanding of the Paper Challenge. To clarify, the purpose is to predict the *expected* physical B-cell FXM. Therefore, B-cell predictions must take into account both class I and class II DSA.

The predicted risk assessment for all 8 patient-donor pairs in this study were reported as unacceptable. Strong class I DSA in each case resulted in good agreement among lab assessments. Only 1 discrepancy was observed, as 1 lab reporting the risk as acceptable for serum 83 vs. donor V3 did not report class I DSA against the donor, only class II DSA (DR4) of

moderate strength (5130).

In general, labs were consistent in the reporting of cPRA (calculated panel reactive antibodies) values for serum 83 and 84. For serum 83, the majority of labs reported cPRA values of 87% or higher, with 15 labs reporting cPRA values of  $\geq 98\%$ . Serum 83 was broadly reactive to a number of antibodies, including 5C and 7C specificities. Interestingly, 3 labs reported cPRA values below 68%. For serum 84, a similar pattern was observed, with the majority of labs reporting cPRA values of 84% or higher, and 3 labs reporting values below 54%. Class I and class II DSA were detected in the sample. The variability observed in the reporting of cPRA values may be due to labs using different criteria for determining cPRA values. While some labs base the calculation on all unacceptable antibodies detected in the sera, others may only consider the DSA specifically directed against an individual donor.

**NEXT MAILING DATE: March 27, 2019**

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

# Flow Cytometric Crossmatch



Cell #079 HLA Genotype: A\*02:01:01-A\*23:01:01-B\*44:03:01-B\*49:01:01-C\*04:01:01-C\*07:01:01-DRB1\*08:01-DRB1\*13:02:01-DRB3\*03:01-DQA1\*01:02:01G-DQA1\*04:01-DQB1\*04:02:01-DQB1\*06:04:01-DPB1\*02:01:02G-DPB1\*04:02:01G

**Table 4a. Individual Flow crossmatch results and DSA reported for Cell #079 vs. Serum #081**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
206	81	2.98	19.97	3.57		POSITIVE	A23 (15681), Cw7(16448)	4.94	46.55	4.22		BORDERLINE	no DSA	7.78	14.45	YES
230	81	2	5			POSITIVE	A23(18126)	3	4			POSITIVE	no DSA	1.1	1.7	YES
774	81	50	84			POSITIVE	A23(8707)	120	54			NEGATIVE	no DSA	252	383	NO
792	81	52	165			POSITIVE	Cw7(14899), A23(13087)	106	121			POSITIVE	no DSA	199	271	YES
836	81	70	158			POSITIVE	A*23:01(15732), C*04:01(2709), C*07:01(15224)	135	102			BORDERLINE	no DSA	0	0	NO
1160	81	90	270			POSITIVE	A23 (9916), Cw4 (2118)	120	270			POSITIVE	no DSA	182	155	YES
2400	81	40 MCS	266			POSITIVE	A23 (14379)	80 MCS	194			POSITIVE	no DSA	153	280	NO
3135	81	1.2	2494	1.6		POSITIVE						NT		1584		NO
3224	81	70	137			POSITIVE	A23 (14102), Cw4 (1565), Cw7 (14954)	140	131			POSITIVE	no DSA	250	254	YES
3753	81	50	191			POSITIVE	A23(10832), Cw7(10470)	100	165			POSITIVE	no DSA	206	224	YES
3966	81	20	210			POSITIVE		50	155			POSITIVE		142	267	NO
4345	81					POSITIVE						NEGATIVE				YES
4661	81	10	76			POSITIVE	A*2301(7079)	10	98			POSITIVE	no DSA	186	7	YES
4985	81	40	115			POSITIVE	A23(12948)	80	149			POSITIVE	no DSA	223	245	NO
8001	81	50	228			POSITIVE	A23(15567), Cw4(1179)	100	203			POSITIVE	no DSA	305	345	YES
8035	81	>48	330			POSITIVE	A23(21338), Cw4(2607)	>90	291			POSITIVE	no DSA	101	139	YES
8050	81	50	135		2396	POSITIVE	A23(6751), Cw4(1513), Cw7(7364)	120	66		2446	NEGATIVE	no DSA	85	156	YES
8083	81	90	182			POSITIVE	A2301 (13879)	150	185			POSITIVE	no DSA	240	245	YES
8096	81	20	45.31			POSITIVE						NT		15.12		NO
8103	81	60.72	27.8	1.2		BORDERLINE	A*23:01	287.5	72.5	1.5		BORDERLINE	no DSA	50.6	169	YES
8107	81	59	280			POSITIVE	A23 (14688), Cw7 (14434)	71	149			POSITIVE	no DSA	237	318	YES
8109	81	2.05		29.79		POSITIVE	A23(14933), Cw7(15824)	2.2		32.69		POSITIVE	no DSA	1.8	1.72	YES

**Table 4b. Individual CDC Crossmatch crossmatch results and DSA reported for Cell #079 vs. Serum #081**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
4079	81					NEGATIVE	A*23:01, C*07:01					NEGATIVE	no DSA			YES

**Table 5a. Individual Flow crossmatch results and DSA reported for Cell #079 vs. Serum #082**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
206	82	2.98	230.22	30.59		POSITIVE	A23(4353), B44(10730), B49(21730)	4.94	431.55	30.87		POSITIVE	DR52(11870)	7.78	14.45	YES
230	82	2	59			POSITIVE	B49(27281)	3	63			POSITIVE	DR52(20721)	1.1	1.7	YES
774	82	50	318			POSITIVE	A23(2862), B49(23339), B44(13758)	120	247			POSITIVE	DR52(13996)	252	383	NO
792	82	52	312			POSITIVE	B49(25005), B44(13780)	106	310			POSITIVE	DR52(14058)	199	271	YES
836	82	70	351			POSITIVE	A*23:01(5963), B*44:03(15534), B*49:01(24838)	135	232			POSITIVE	DRB3*03:01(16944)	0	0	NO
1160	82	90	470			POSITIVE	A23 (4349), B49 (22933), B44 (12113)	120	493			POSITIVE	DR52 (10857)	182	155	YES
2400	82	40 MCS	456			POSITIVE	A23 (5994), B44 (14940), B49 (23630)	80 MCS	354			POSITIVE	DRB3*03 (16159)	153	280	NO
3135	82	1,2	9359	5,9		POSITIVE						NT	1584			NO
3224	82	70	356			POSITIVE	A23(6479),B44(14727), B49(21473)	140	371			POSITIVE	DR52 13,242	250	254	YES
3753	82	50	428			POSITIVE	A23(3737), B44(11283), B49(23278)	100	412			POSITIVE	DR52(10227)	206	224	YES
3966	82	20	424			POSITIVE		50	336			POSITIVE		142	267	NO
4345	82					POSITIVE						POSITIVE				YES
4661	82	10	416			POSITIVE	A*2301(776), B*4403(5959), B*4901(16582)	10	411			POSITIVE	DRB3*0301(3274)	186	7	YES
4985	82	40	270			POSITIVE	A23(3976), B49(20342), B44(10406)	80	299			POSITIVE	DRB3*03(13,737)	223	245	NO
8001	82	50	418			POSITIVE	A23(5474), B44(15759), B49(24414)	100	392			POSITIVE	DR52(17576)	305	345	YES
8035	82	>48	502			POSITIVE	A23 (8676), B44 (17332), B49 (28158), Bw4 (20177)	>90	462			POSITIVE	DR52 (13,755),DP2 (980)	101	139	YES
8050	82	50	440		52796	POSITIVE	A23(1607) B44(9257) B49(24188)	120	371		53877	POSITIVE	DR52(10801)	85	156	YES
8083	82	90	530			POSITIVE	A2301 (6006), B4403 (13282), B4901 (21627)	150	523			POSITIVE	DRB3*0301 (11994)	240	245	YES
8096	82	20	177.7			POSITIVE						NT	15.12			NO
8103	82	60.72	1145.3	1.2		POSITIVE	B*44, B*49 (MFI10092)	287.5	2914.7	1.5		POSITIVE	DR52 (5332)	50.6	169	YES
8107	82	59	518			POSITIVE	A23(6123). B44/*44:03 (12829), B49 (20242)	71	393			POSITIVE	DR52/DRB3*03:01 (12851)	237	318	YES
8109	82	2.05		186.14		POSITIVE	B49(24098), B44(15506), A23(5682)	2.2		164.83		POSITIVE	DR52(15165)	1.8	1.72	YES

**Table 5b. Individual CDC crossmatch results and DSA reported for Cell #079 vs. Serum #082**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)			Pronase Treated
4079	82					POSITIVE	A*23:01 B*44:03 B*49:01					POSITIVE	DRB3*03:01			YES

**Table 6a. Individual Flow crossmatch results and DSA reported for Cell #079 vs. Serum #083**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
206	83	2.98	42.12	6.41		POSITIVE	A2(15309) B49(4596) CW4(3755)	4.94	96.55	7.68		POSITIVE	no DSA	7.78	14.45	YES
230	83	2	10			POSITIVE	A2(16659)	3	10			POSITIVE	DQ6(6690)	1.1	1.7	YES
774	83	50	147			POSITIVE	A2(11826)	120	113			POSITIVE	DQ6(5284)	252	383	NO
792	83	52	172			POSITIVE	A2(12594), B49(3481)	106	179			POSITIVE	DQ6(2049)	199	271	YES
836	83	70	151			POSITIVE	A*02:01(15869), B*49:01(4647), C*04:01(4097)	135	97			BORDERLINE	DQB1*04:02/ DQA1*04:01(1281), DQB1*06:04/ DQA1*01:02(2777)	0	0	NO
1160	83	90	311			POSITIVE	A2 (10209), B49 (2806), Cw4 (2423)	120	327			POSITIVE	DQ4(1055), DQ6(2011)	182	155	YES
2400	83	40 MCS	234			POSITIVE	A2 (15240), B49 (4095), Cw4 (3810)	80 MCS	192			POSITIVE	DQB1*06:04 (2650)	153	280	NO
3135	83	1,2	2383	1,5		POSITIVE						NT		1584		NO
3224	83	70	176			POSITIVE	A2(14067), B49(4439), B44(1022), Cw4(3448)	140	187			POSITIVE	DQA1*01(6365), DQ4(1182), DQ6(2300)	250	254	YES
3753	83	50	208			POSITIVE	A2(11516), B49(3812), Cw4(3671)	100	182			POSITIVE	DQ4(1991), DQ6(3571)	206	224	YES
3966	83	20	228			POSITIVE		50	190			POSITIVE		142	267	NO
4345	83					POSITIVE						NEGATIVE				YES
4661	83	10	225			POSITIVE	A*0201(5238), B*4901(1317)	10	228			POSITIVE	DQB1*0604(1597)	186	7	YES
4985	83	40	108			POSITIVE	A2(13,588), B49(3527)	80	165			POSITIVE		223	245	NO
8001	83	50	231			POSITIVE	A2(15910), A23(607), B44(959), B49(4717), Cw4(3965)	100	206			POSITIVE	DQ4(2200), DQ6(3385)	305	345	YES
8035	83	>48	305			POSITIVE	A2(17555), A23 (889), B44(1270), B49(5558), Cw4(4866)	>90	300			POSITIVE	DQ4(2509), DQ6(4232), DQA1*01:02(3475)	101	139	YES
8050	83	50	264		8863	POSITIVE	A2(8841), B49(2497), Cw4(2245)	120	186		8256	POSITIVE	DQ4(2129), DQ6(3171)	85	156	YES
8083	83	90	333			POSITIVE	A0201(14179), B4901(4472)	150	364			POSITIVE	DQB1*0604(2954), DQB1*0402(2111)	240	245	YES
8096	83	20	31.02			POSITIVE						NT		15.12		NO
8103	83	60.72	198.28	1.2		POSITIVE	A*02 (2964), Cw4	287.5	932.7	1.5		POSITIVE	DQB1*06 (961)	50.6	169	YES
8107	83	59	310			POSITIVE	A2(11252), B49(3600), Cw4(3095)	71	212			POSITIVE	DQ6(DQA1*01:02, DQB1*06:04 )1585	237	318	YES
8109	83	2.05		38.42		POSITIVE	A2(13296), B49(3414), Cw4(2960)	2.2		33.35		POSITIVE	DQ6(3849), DQ4(2839)	1.8	1.72	YES

**Table 6b. Individual CDC crossmatch results and DSA reported for Cell #079 vs. Serum #083**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)			Pronase Treated
4079	83					NEGATIVE	A*02:01, B*49:01, C*04:01					NEGATIVE	DQB1*06:04			YES

**Table 7a. Individual Flow crossmatch results and DSA reported for Cell #079 vs. Serum #084**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
206	84	2.98	59.22	8.61		POSITIVE	B49(14145)	4.94	107.05	8.41		POSITIVE	no DSA	7.78	14.45	YES
230	84	2	13			POSITIVE	B49(15175)	3	13			POSITIVE	no DSA	1.1	1.7	YES
774	84	50	149			POSITIVE	B49(11799), Cw4(11749)	120	103			POSITIVE	no DSA	252	383	NO
792	84	52	239			POSITIVE	B49(12021), Cw4(11462)	106	192			POSITIVE	no DSA	199	271	YES
836	84	70	205			POSITIVE	B*44:03(1091), B*49:01(14943), C*04:01(12923)	135	122			BORDERLINE	no DSA	0	0	NO
1160	84	90	337			POSITIVE	B49 (10781), Cw4 (10828)	120	336			POSITIVE	no DSA	182	155	YES
2400	84	40 MCS	293			POSITIVE	B49 (13741), Cw4 (11899)	80 MCS	217			POSITIVE	no DSA	153	280	NO
3135	84	1.2	3434	2.2		POSITIVE						NT		1584		NO
3224	84	70	220			POSITIVE	B44(1050), B49(13068), Cw4(9816)	140	198			POSITIVE	no DSA	250	254	YES
3753	84	50	272			POSITIVE	B49(12939), Cw4(13454)	100	211			POSITIVE	no DSA	206	224	YES
3966	84	20	277			POSITIVE		50	222			POSITIVE		142	267	NO
4345	84					POSITIVE						POSITIVE				YES
4661	84	10	219			POSITIVE	B*4901(5650), C*0401(2523)	10	219			POSITIVE	no DSA	186	7	YES
4985	84	40	141			POSITIVE	B49(12527), Cw4(9590)	80	163			POSITIVE	no DSA	223	245	NO
8001	84	50	257			POSITIVE	B44(1034), B49(15275), Cw4(11346)	100	238			POSITIVE	no DSA	305	345	YES
8035	84	>48	341			POSITIVE	B44 (1350), B49 (17,851), Cw4 (14,531)	>90	294			POSITIVE	no DSA	101	139	YES
8050	84	50	278		10215	POSITIVE	B49(8256), Cw4(13289)	120	177		7536	POSITIVE	no DSA	85	156	YES
8083	84	90	354			POSITIVE	B4901 (12724), Cw0401 (11169)	150	346			POSITIVE	no DSA	240	245	YES
8096	84	20	24.83			POSITIVE						NT		15.12		NO
8103	84	60.72	114.28	1.2		POSITIVE	B*49 (2191)	287.5	477	1.5		POSITIVE	no DSA	50.6	169	YES
8107	84	59	326			POSITIVE	B49(10158), Cw4(9426)	71	196			POSITIVE	no DSA	237	318	YES
8109	84	2.05		45.55		POSITIVE	B49(13669), Cw4(10349)	2.2		37.09		POSITIVE	no DSA	1.8	1.72	YES

**Table 7b. Individual CDC crossmatch results and DSA reported for Cell #079 vs. Serum #084**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)			Pronase Treated
4079	84					NEGATIVE	B*49:01 C*04:01					NEGATIVE	no DSA			YES

Cell #080 HLA Genotype: A\*11:01-A\*34:01-B\*15:02-B\*15:21-C\*04:03-C\*08:01:01G-DRB1\*15:02-DRB5\*01:01-DQA1\*01:02:01G-DQB1\*05:02-DPB1\*01:01:01G-DPB1\*05:01:01G

**Table 8a. Individual Flow crossmatch results and DSA reported for Cell #080 vs. Serum #081**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
206	81	2.98	144.15	16.42		POSITIVE	A11(16004) A34(17241) B75(4865)	4.94	199.75	18.76		POSITIVE	no DSA	9.35	11.25	YES
230	81	2	10			POSITIVE	A11(18228)	3	7			POSITIVE	no DSA	1	1.5	YES
774	81	50	263			POSITIVE	A34(11810), B75(4723)	120	251			POSITIVE	no DSA	252	352	NO
792	81	52	331			POSITIVE	A 34(15410), A11(14712)	106	245			POSITIVE	no DSA	172	298	YES
836	81	70	271			POSITIVE	A*11:01(16394), A*34:01(15314), B*15:02(5000), B*15:21(5889)	135	221			POSITIVE	no DSA	0	0	NO
1160	81					NT						NT				
2400	81	40 MCS	365			POSITIVE	A11(14785), A34(14216), B*15:02(4377)	80 MCS	315			POSITIVE	no DSA	161	254	NO
3135	81	1,2	4417	2,4		POSITIVE						NT		1869		YES
3224	81	70	358			POSITIVE	A11(10549), A34(14402), B75(4457), Cw4(1565)	140	278			POSITIVE	no DSA	250	254	YES
3753	81	50	328			POSITIVE	A11(11509), A34(12633), B75(4967)	100	332			POSITIVE	no DSA	209	235	YES
3966	81	20	296			POSITIVE		50	296			POSITIVE		147	277	NO
4345	81					POSITIVE						NEGATIVE				NO
4661	81	10	193			POSITIVE	A*1101(8218), A*3402(7020), B*1502(1108), B*1501(867)	10	201			POSITIVE	no DSA	201	245	YES
4985	81	40	234			POSITIVE	A11(13701), A34(11736), B75(4575)	80	266			POSITIVE	no DSA	214	199	NO
8001	81	50	361			POSITIVE	A 11(16561), A34(17060), B75(5409)	100	309			POSITIVE	no DSA	252	328	YES
8035	81	>48	379			POSITIVE	A11(21252), A34 (22083), B75 (8773)	>90	320			POSITIVE	no DSA	175	223	YES
8050	81	50	290		11773	POSITIVE	A 11(7910) A34(8981) B75(3872) Cw4(1513)	120	182		8863	POSITIVE	no DSA	87	167	YES
8083	81	90	337			POSITIVE	A1101 (13632), A3401 (12924), B1502 (4213)	150	265			POSITIVE	no DSA	219	175	YES
8096	81	20	220.15			POSITIVE						NT		14.86		NO

**Table 8a. Individual Flow crossmatch results and DSA reported for Cell #080 vs. Serum #081, cont.**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
8103	81	50.16	180.84	1.2		POSITIVE	A*11:01(2893) B*15 (2521)	367.2	1102.8	1.5		POSITIVE	no DSA	41.8	216	NO
8107	81	59	376			POSITIVE	A11/*11:01(14966), B75/B*15:02(5377), A34(14195)	71	233			POSITIVE	no DSA	258	330	YES
8109	81	2.05		112.62		POSITIVE	A 11(17456), A34(17849), B75(5095)	2.2		113.4		POSITIVE	no DSA	1.45	1.76	YES

**Table 8b. Individual CDC crossmatch results and DSA reported for Cell #080 vs. Serum #081**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)			Pronase Treated
4079	81					NEGATIVE	A *11:01 B*15:02					NEGATIVE	no DSA			YES

**Table 9a. Individual Flow crossmatch results and DSA reported for Cell #080 vs. Serum #082**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
206	82	2.98	129.65	14.87		POSITIVE	B75(16404)	4.94	211.75	19.82		POSITIVE	no DSA	9.35	11.25	YES
230	82	2	20			POSITIVE	B75(20503)	3	15			POSITIVE	no DSA	1	1.5	YES
774	82	50	257			POSITIVE	B75(16807)	120	264			POSITIVE	no DSA	252	352	NO
792	82	52	321			POSITIVE	B75(17129)	106	235			POSITIVE	no DSA	172	298	YES
836	82	70	271			POSITIVE	B*15:02(18477), B*15:21(20388)	135	225			POSITIVE	no DSA	0	0	NO
1160	82					NT						NT				
2400	82	40 MCS	318			POSITIVE	B*15:02 (18099)	80 MCS	261			POSITIVE	no DSA	161	254	NO
3135	82	1,2	3874	2,1		POSITIVE						NT	1869			YES
3224	82	70	363			POSITIVE	B75(16792)	140	293			POSITIVE	no DSA	250	254	YES
3753	82	50	327			POSITIVE	B75(14424)	100	321			POSITIVE	no DSA	209	235	YES
3966	82	20	318			POSITIVE		50	322			POSITIVE	147	277	NO	
4345	82					POSITIVE						NEGATIVE				NO
4661	82	10	271			POSITIVE	B*1502(8340), B*1501(10973)	10	283			POSITIVE	no DSA	201	245	YES
4985	82	40	226			POSITIVE	B75(13517)	80	281			POSITIVE	no DSA	214	199	NO
8001	82	50	363			POSITIVE	B75(19015)	100	300			POSITIVE	no DSA	252	328	YES
8035	82	>48	333			POSITIVE	B75(21,157)	>90	313			POSITIVE	no DSA	175	223	YES
8050	82	50	342		19947	POSITIVE	B75(12046)	120	232		14715	POSITIVE	no DSA	87	167	YES
8083	82	90	386			POSITIVE	B1502(15877)	150	414			POSITIVE	no DSA	219	175	YES
8096	82	20	156.68			POSITIVE						NT	14.86			NO
8103	82	50.16	308.84	1.2		POSITIVE	B*15(8408)	367.2	1808.8	1.5		POSITIVE	no DSA	41.8	216	NO
8107	82	59	365			POSITIVE	B75/B*15:02(15248).	71	231			POSITIVE	no DSA	258	330	YES
8109	82	2.05		99.63		POSITIVE	B75(5095)	2.2		51.96		POSITIVE	no DSA	1.45	1.76	YES

**Table 9b. Individual CDC crossmatch results and DSA reported for Cell #080 vs. Serum #082**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)			Pronase Treated
4079	82					NEGATIVE	B*15:02					NEGATIVE	no DSA			YES

**Table 10a. Individual Flow crossmatch results and DSA reported for Cell #080 vs. Serum #083**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
206	83	2.98	30.95	4.31		POSITIVE	B75(6637) Cw4(3755)	4.94	57	6.07		POSITIVE	no DSA	9.35	11.25	YES
230	83	2	6			POSITIVE	B75(7198)	3	10			POSITIVE	no DSA	1	1.5	YES
774	83	50	148			POSITIVE	B75(5335)	120	155			POSITIVE	DQ5(2277)	252	352	NO
792	83	52	209			POSITIVE	B75(5228)	106	174			POSITIVE	DQ5(1834)	172	298	YES
836	83	70	132			POSITIVE	B*15:02(6856), B*15:21(7214), C*04:03(4720)	135	128			BORDERLINE	DQB1*05:02/ DQA1*01:02(1658)	0	0	NO
1160	83					NT						NT				
2400	83	40 MCS	187			POSITIVE	B*15:02(5965)	80 MCS	191			POSITIVE	DQA1*01:02(3140), DQB1*05:02(1528)	161	254	NO
3135	83	1,2	2489	1,3		POSITIVE						NT		1869		YES
3224	83	70	220			POSITIVE	B75(5871), Cw4(3400)	140	223			POSITIVE	DQA1*01(1454), DQ5(1454)	250	254	YES
3753	83	50	191			POSITIVE	B75(4555), Cw4(3671)	100	192			POSITIVE	DQ5(1993)	209	235	YES
3966	83	20	171			POSITIVE		50	201			POSITIVE		147	277	NO
4345	83					NEGATIVE						NEGATIVE				NO
4661	83	10	140			POSITIVE	B*1502(1973), B*1501(2886), C*0403(2720)	10	154			POSITIVE	no DSA	201	245	YES
4985	83	40	111			POSITIVE	B75(5985)	80	194			POSITIVE	no DSA	214	199	NO
8001	83	50	215			POSITIVE	B75(7142)	100	186			POSITIVE	DQ5 (1915)	252	328	YES
8035	83	>48	218			POSITIVE	B75 (8000)	>90	234			POSITIVE	DQ5(2314), DQA1*01:02(3475)	175	223	YES
8050	83	50	238		6949	POSITIVE	B75(3241) Cw4(2245)	120	152		6539	POSITIVE	DQ5(1759)	87	167	YES
8083	83	90	305			POSITIVE	B1502(6545)	150	355			POSITIVE	no DSA	219	175	YES
8096	83	20	28.46			POSITIVE						NT		14.86		NO
8103	83	50.16	107.84	1.2		POSITIVE	B*15(1426), Cw4(1278)	367.2	1095.8	1.5		POSITIVE	no DSA	41.8	216	NO
8107	83	59	229			POSITIVE	B75/B*15:02 (5224), Cw4/*04:01 (3095)	71	128			POSITIVE	no DSA	258	330	YES
8109	83	2.05		25.19		POSITIVE	B75(5395), Cw4(2960)	2.2		27.17		POSITIVE	no DSA	1.45	1.76	YES

**Table 10b. Individual CDC crossmatch results and DSA reported for Cell #080 vs. Serum #083**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)			Pronase Treated
4079	83					NEGATIVE	B*15:02 C*04:03					NEGATIVE	no DSA			YES



**Table 11a. Individual Flow crossmatch results and DSA reported for Cell #080 vs. Serum #084**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
206	84	2.98	116.15	13.42		POSITIVE	B75(15581)	4.94	166.75	15.82		POSITIVE	no DSA	9.35	11.25	YES
230	84	2	15			POSITIVE	B75(17821)	3	11			POSITIVE	no DSA	1	1.5	YES
774	84	50	212			POSITIVE	B75(13542)	120	230			POSITIVE	no DSA	252	352	NO
792	84	52	306			POSITIVE	B75(13993), Cw4(11462)	106	243			POSITIVE	no DSA	172	298	YES
836	84	70	271			POSITIVE	B*15:02(16193), B*15:21(17942), C*04:03(7629)	135	259			POSITIVE	no DSA	0	0	NO
1160	84					NT						NT				YES
2400	84	40 MCS	320			POSITIVE	B*15:02(15387)	80 MCS	277			POSITIVE	no DSA	161	254	NO
3135	84	1,2	3788	2,0		POSITIVE						NT		1869		YES
3224	84	70	365			POSITIVE	B75(11675), Cw4(9800)	140	285			POSITIVE	no DSA	250	254	YES
3753	84	50	315			POSITIVE	B75(13073), Cw4(13454)	100	302			POSITIVE	no DSA	209	235	YES
3966	84	20	298			POSITIVE		50	315			POSITIVE		147	277	NO
4345	84					POSITIVE						POSITIVE				NO
4661	84	10	224			POSITIVE	B*1502(6210), B*1501(5480), C*0403(6526)	10	241			POSITIVE	no DSA	201	245	YES
4985	84	40	182			POSITIVE	B75(14017)	80	223			POSITIVE	no DSA	214	199	NO
8001	84	50	346			POSITIVE	B75(16836)	100	303			POSITIVE	no DSA	252	328	YES
8035	84	>48	321			POSITIVE	B75 (19,285)	>90	280			POSITIVE	no DSA	175	223	YES
8050	84	50	312		14715	POSITIVE	B75(9308) Cw4(13289)	120	214		12261	POSITIVE	no DSA	87	167	YES
8083	84	90	369			POSITIVE	B1502 (14073)	150	365			POSITIVE	no DSA	219	175	YES
8096	84	20	118.49			POSITIVE						NT		14.86		NO
8103	84	50.16	271.84	1.2		POSITIVE	B*15 (2666)	367.2	1508.8	1.5		POSITIVE	no DSA	41.8	216	NO
8107	84	59	359			POSITIVE	B75/*15:02(11460), Cw4/*04:01 (9426).	71	215			POSITIVE	no DSA	258	330	YES
8109	84	2.05		83.93		POSITIVE	B75(11684), Cw4(10349)	2.2		47.51		POSITIVE	no DSA	1.45	1.76	YES

**Table 11b. Individual Flow crossmatch results and DSA reported for Cell #080 vs. Serum #084**

Ctr	Serum no	T Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA(MFI)	B Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA(MFI)	T Cell NEG Control MC	B Cell NEG Control MC	Pronase Treated
4079	84					POSITIVE	B*15:02 C*04:03					NEGATIVE	no DSA			YES

# Single Antigen

**Table 12. Summary of Single Antigen results for Serum #081**

*** Serum 81 ***							
21 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
A1	21	100%	19045	18202	6002	3005	27094
<b>A23</b>	21	100%	13879	12276	4804	1576	21338
A25	21	100%	15416	13975	5017	2487	22821
A26	21	100%	13386	12245	4815	1930	20047
<b>A34</b>	21	100%	15114	13719	5168	2171	22083
A36	21	100%	13350	12569	4684	2154	21324
A43	21	100%	12768	11563	4539	1623	19198
A80	21	100%	17681	15848	5409	2586	24463
B54	21	100%	7397	6795	2738	664	12820
B59	21	100%	9018	8406	3440	528	15294
B73	21	100%	14195	12936	4804	1862	21260
B76	21	100%	13587	12590	4430	1970	20630
B8	21	100%	20846	19164	6257	3098	27998
<b>Cw7</b>	21	100%	14044	11940	5327	1060	21642
A24	20	95%	12706	11276	4551	1957	20481
B64	20	95%	6518	6126	2211	630	11430
B65	20	95%	5661	5483	1885	603	9901
B18	19	90%	5781	5784	1723	1636	10370
B42	19	90%	6954	6890	2131	1406	11930
B55	19	90%	5860	5671	1912	1241	10178
B56	19	90%	4179	3967	1244	1140	7610
B67	19	90%	5797	5618	1698	1471	10387
B7	19	90%	5079	4850	1502	1597	9097
B71	19	90%	4637	4490	1327	1288	8285
<b>B75</b>	19	90%	4967	4882	1437	1108	8773
Cw18	19	90%	10849	9605	3800	954	16734
Cw6	19	90%	9749	8748	3696	911	14515
B35	18	85%	3272	3391	1063	880	6205
B41	18	85%	3754	3670	1302	869	7444
B61	18	85%	3493	3434	1162	714	6377
B39	17	80%	5755	5886	1530	3699	10538
B45	17	80%	3120	3055	1048	881	6214
B50	17	80%	2912	2916	1030	886	6035
<b>A11</b>	16	76%	14423	13216	5050	2754	21252
<b>A1101</b>	7	33%	10000	9962	5238	2754	16394
A1102	7	33%	10700	9134	6177	1178	16660
B60	16	76%	2938	2923	1017	658	5715
B62	16	76%	2564	2529	935	867	5218
B78	16	76%	3942	4234	921	3508	7204
B48	15	71%	2867	3016	946	1445	5905
B72	14	66%	2580	2709	910	1291	5456

*** Serum 81 ***							
20 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DQ2	20	100%	5243	4959	1923	899	7968
DP19	8	40%	1641	1727	318	1244	2188
DQA1*05	3	15%	7968	6986	2230	3900	9092
DPA1*01	1	5%	1552	1552	-	1552	1552
DQA1*01	1	5%	1091	1091	-	1091	1091
DQA1*02	1	5%	3806	3806	-	3806	3806
DQA1*03	1	5%	5452	5452	-	5452	5452
DQA1*04	1	5%	5165	5165	-	5165	5165
DR16	1	5%	1567	1567	-	1567	1567
DR52	1	5%	876	876	-	876	876

**Blue** = DSA against cell #079 only  
**Gold** = DSA against cell #080 only  
**Green** = DSA against cell #079 and #80

**Table 13. Summary of Single Antigen results for Serum #082**

*** Serum 82 ***							
21 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
A25	21	100%	13276	12430	4270	2047	18976
A32	21	100%	17074	14834	5177	2398	22565
B13	21	100%	15273	13906	5005	1534	19925
B35	21	100%	16091	14766	4827	2947	21158
B37	21	100%	9685	9119	3304	941	14189
B38	21	100%	18974	17512	5409	3225	25580
B41	21	100%	8304	7507	3164	539	12861
<b>B44</b>	21	100%	13282	12034	4274	1619	17554
B45	21	100%	8705	8046	3270	776	13637
B46	21	100%	9747	8743	3618	548	14684
B47	21	100%	8041	7207	2734	897	12195
<b>B49</b>	21	100%	22933	21564	4850	7475	28158
B50	21	100%	19835	18199	4990	4462	24643
B51	21	100%	21756	20740	5765	3807	27691
B52	21	100%	20396	19365	4997	4382	25525
B53	21	100%	20090	19012	5122	5018	26932
B56	21	100%	18116	16342	4965	3261	22681
B57	21	100%	19358	18346	5333	4328	25330
B58	21	100%	19040	18225	5614	3357	25378
B59	21	100%	18581	17148	5334	2821	24435
B62	21	100%	18187	16840	5043	3919	23682
B63	21	100%	20333	19705	4754	6791	25955
B71	21	100%	18853	16839	4990	3806	23707
B72	21	100%	18299	16637	5065	3110	23599
<b>B75</b>	21	100%	15877	14937	4659	2722	20503
B77	21	100%	20094	18937	5304	4185	26687
<b>A23</b>	19	90%	5558	4972	1826	776	8676
A24	19	90%	5260	4712	1980	653	7604
B60	19	90%	6187	6061	1760	1546	9494
B61	19	90%	6904	6656	2025	1630	9918
B76	19	90%	5277	4951	1470	1160	8085
B55	17	80%	5013	4921	1064	2775	7288
B78	17	80%	11999	11523	3763	1764	16908
Cw10	17	80%	5999	5647	1698	1024	7705
B4005	1	4%	21346	21346	0	21346	21346
B42	1	4%	2084	2084	0	2084	2084
B18	15	71%	3432	3284	843	1685	5267
B64	15	71%	2528	2401	740	694	3996
Cw9	15	71%	4577	4516	1182	2600	6963
B39	14	66%	2414	2622	1190	1079	6254
B54	14	66%	2260	2257	521	1345	3445

*** Serum 82 ***							
21 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DR11	21	100%	4738	4645	1603	1515	8263
DR17	21	100%	4372	4251	1344	1317	6862
DR18	21	100%	3755	3701	1166	1226	5809
<b>DR52</b>	20	95%	12618	12312	3711	5332	18407
DQ7	5	23%	1406	1405	224	1145	1727
DP18	3	14%	1301	1346	88	1268	1469
DQ8	3	14%	1319	1404	135	1298	1595
DQ9	3	14%	1112	1139	124	1003	1303
DPA1*01	2	9%	1086	1085	77	1009	1162
DQA1*03	2	9%	1769	1768	174	1595	1942
DQA1*05	2	9%	1838	1837	267	1571	2104
DQA1*06	2	9%	1834	1833	271	1563	2104
DP10	1	4%	986	986	0	986	986
DP28	1	4%	1009	1009	0	1009	1009
DPA1*02	1	4%	1469	1469	0	1469	1469
DPw2	1	4%	980	980	0	980	980
DQA1*02	1	4%	1048	1048	0	1048	1048
DR3	1	4%	1522	1522	0	1522	1522

**Blue** = DSA against cell #079 only  
**Gold** = DSA against cell #080 only  
**Green** = DSA against cell #079 and #80

**Table 14. Summary of Single Antigen results for Serum #083**

*** Serum 83 ***							
22 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
A2	22	100%	12945	11856	4647	1811	18074
A68	22	100%	7230	7062	2950	1012	11152
A69	22	100%	7424	7091	3201	705	12324
B57	22	100%	6689	6051	2384	798	9238
B62	22	100%	7082	6370	2563	949	10266
B63	22	100%	4371	4125	1882	676	8731
B75	22	100%	5265	4841	1984	597	7214
B76	22	100%	5539	5044	1939	645	8030
B58	21	95%	4530	4363	1568	706	6528
B72	21	95%	4428	4214	1571	754	6629
B77	21	95%	5152	4731	1829	511	7329
B46	20	90%	3543	3391	1072	609	5360
B49	20	90%	3755	3671	1202	519	5558
B50	20	90%	4118	3837	966	1280	5609
B71	20	90%	4240	4125	1332	705	6037
Cw18	20	90%	5846	5088	2368	535	9181
Cw2	20	90%	5418	5029	2332	629	8957
Cw6	20	90%	5515	4969	2346	639	8399
Cw15	19	86%	6885	6288	2636	1383	10720
Cw17	19	86%	4795	4376	1908	511	7864
B56	18	81%	3164	3088	1009	487	4926
Cw5	18	81%	6856	6335	2523	712	10093
Cw4	17	77%	3095	3183	1025	1278	4866
B52	15	68%	2157	2308	469	1276	3140
B51	14	63%	2662	2474	473	1491	3000
B13	13	59%	2253	2040	461	1147	2785
B35	13	59%	2342	2039	573	985	2957
B53	12	54%	2037	1971	415	1132	2751
B55	8	36%	1269	1352	343	891	1941
B78	6	27%	1327	1315	254	972	1634
A203	5	22%	10300	8466	5555	1484	14946
B45	5	22%	1100	1063	275	618	1482
Cw12	5	22%	1160	1302	225	1100	1645
A24	4	18%	1054	1044	290	626	1445
A30	1	4%	909	909	0	909	909
A32	1	4%	855	855	0	855	855
A3	4	18%	890	941	336	575	1411
A74	3	13%	1031	923	192	653	1086
B44	3	13%	1022	974	263	632	1270
Cw403	3	13%	1278	2252	1758	759	4720
A11	2	9%	1180	1179	541	639	1720

*** Serum 83 ***							
22 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DQ8	22	100%	7128	6837	3000	603	11848
DR4	22	100%	12189	11386	3762	573	17217
DQ9	21	95%	7180	7410	2870	1703	12558
DR53	21	95%	4740	4629	1744	1465	7482
DQ6	19	86%	4125	4293	1826	961	7373
DQ4	14	63%	3185	3221	1390	821	5363
DQ5	14	63%	2296	2335	726	613	3302
DR1	7	31%	1545	1506	244	1179	1908
DQA1*01	5	22%	3845	4304	2243	1538	7373
DQA1*03	4	18%	6260	6558	4347	1156	12558
DQA1*04	2	9%	1724	1724	443	1281	2167
DR9	2	9%	699	698	168	531	866
DQ2	1	4%	1047	1047	-	1047	1047
DQ3	1	4%	1839	1839	-	1839	1839
DQ7	1	4%	498	498	-	498	498
DQA1*02	1	4%	7488	7488	-	7488	7488
DR11	1	4%	498	498	-	498	498
DR7	1	4%	593	593	-	593	593

Blue = DSA against cell #079 only  
 Gold = DSA against cell #080 only  
 Green = DSA against cell #079 and #80

**Table 15. Summary of Single Antigen results for Serum #084**

*** Serum 84 ***						
22 typing Labs						
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min Max
B35	22	100%	16066	14551	4996	3191 22604
B46	22	100%	9502	8391	3507	902 14565
<b>B49</b>	22	100%	12626	11275	4179	2037 17851
B50	22	100%	12108	10832	3909	2048 17657
B51	22	100%	17207	14934	5832	2316 22595
B52	22	100%	11498	10216	3887	1952 16242
B53	22	100%	16179	14374	4984	3343 22942
B56	22	100%	12325	10979	4071	1627 17518
B57	22	100%	9685	8547	3237	1477 13877
B58	22	100%	9062	8348	3477	1125 14159
B62	22	100%	11151	10349	3838	1983 17294
B63	22	100%	10199	9489	3520	1937 16638
B71	22	100%	13826	12436	4223	2666 19170
B72	22	100%	11084	9988	3683	1905 16597
<b>B75</b>	22	100%	14005	12564	4417	2553 18285
Cw15	22	100%	20551	17720	7694	1528 27651
Cw6	22	100%	14604	13050	4631	2465 18637
B18	21	95%	5972	5382	2143	797 9629
B37	21	95%	3587	3442	1312	806 6381
B77	21	95%	13310	12222	3990	2464 18859
Cw17	21	95%	10063	9514	3906	1867 15920
Cw18	21	95%	16849	15014	6251	784 22565
Cw2	21	95%	13496	12021	4787	1916 17365
<b>Cw4</b>	21	95%	11169	10262	3456	1236 14531
Cw5	21	95%	18829	16835	6011	2156 23783
B78	19	86%	13885	12799	4401	2623 19289
Cw10	19	86%	6714	6345	2360	1210 9852
Cw9	19	86%	5850	5580	2074	957 9759
Cw12	16	72%	3358	3304	726	2103 4984
B44	5	22%	1091	1476	700	1034 2858
B54	5	22%	1392	1486	177	1274 1757
Cw14	5	22%	1920	1917	506	1300 2713
B7801	4	18%	9067	8714	4449	2623 14100
A25	3	13%	1228	1408	327	1131 1867
B27	1	4%	1061	1061	0	1061 1061
B38	1	4%	3944	3944	0	3944 3944
Cw403	3	13%	5541	5377	1909	2962 7629
B45	2	9%	1458	1458	318	1140 1776
B64	2	9%	1034	1034	146	888 1180
Cw16	2	9%	12961	12960	9716	3245 22676
Cw8	2	9%	10178	10177	8199	1979 18376

*** Serum 84 ***						
21 typing Labs						
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min Max
DQ7	21	100%	10938	9879	4109	453 15223
DQ8	8	38%	1551	1466	519	218 1922
DQ9	7	33%	1965	1788	368	1064 2176
DQA1*05	3	14%	14100	12761	1953	10000 14184
DQA1*06	3	14%	15223	13582	2536	10000 15524
DQA1*03	2	9%	3233	3232	695	2538 3927
DP17	1	4%	1183	1183	-	1183 1183
DQA1*02	1	4%	8113	8113	-	8113 8113
DR11	1	4%	830	830	-	830 830
DR13	1	4%	570	570	-	570 570
DR14	1	4%	680	680	-	680 680
DR4	1	4%	623	623	-	623 623
DR51	1	4%	444	444	-	444 444

**Blue** = DSA against cell #079 only  
**Gold** = DSA against cell #080 only  
**Green** = DSA against cell #079 and #80

**Table 16. Individual laboratory results for Serum #081 - class I by Luminex**

**** Serum 81 ****																									
Ctr	A1	A23	A25	A26	A34	A36	A43	A80	B54	B59	B73	B76	B8	Cw7	A24	B64	B65	B18	B42	B55	B56	B67	B7	B71	B75
54	21590	16237	17815	15999	17757	16921	15899	18982	8208	8706	16059	15194	21634	14044	15669	6853	6767	6741	7626	5345	4513	6217	5297	4695	5595
206	21463	15681	17870	15254	17241	15418	14716	19637	8399	10657	16092	15594	21843	16448	14559	6947	5823	6324	7666	6405	4391	6368	5485	5009	4865
230	25443	18126	18693	16770	19449	17700	16415	21409	8664	12298	17791	17166	26083	18443		8010	6793	6850	8134	6545	4372	6197	5574	5243	6089
774	16563	8707	12135	8942	11810	8827	8126	16040	6830	9018	11160	13587	20846	9521	6217	5962	4779	4961	6128	5160	3415	4758	4188	4121	4723
792	20827	13087	15603	13386	15410	14121	12885	17729	7226	10563	14309	13218	21902	14899	12460	6664	5676	6032	6582	5542	3642	5512	4597	4493	4793
836	23288	15732	17630	20047	17863	17040	15230	18872	8496	8186	16077	15556	22567	15224	15313	6890	6980	6576	9794	8692	4625	6455	5489	5029	5889
1160	17052	9916	12420	11146	12737	11910	10993	13772	5628	5901	11562	10261	16829	8564	9942	4604	4588	4265	5322	3715	3202	4435	3766	3165	3649
2400	22375	14444	16143	15088	15312	14763	13968	19469	7340	9847	15317	13535	21916	15150	13456	6372	5646	5778	6590	6350	4083	5512	4649	4634	4808
3224	18571	14102	15416	13471	15114	13448	12768	16490	7397	8802	14195	12958	19410	14054	12535	6676	5347	5781	6886	5545	4264	5797	5116	4684	4985
3753	18941	10832	12608	9826	12633	10170	9044	17765	7933	10328	12305	14886	22264	10470	8969	6228	5393	5382	7060	5860	4154	5999	5079	4637	4967
4661	10960	7079	7786	6119	7020	8084	5576	7924	2403	2753	6218	6882	9244	3283	7384	1939	1835	1636	1406	1241	1140	1471	1597	1288	1108
4985	18738	12948	13645	11960	13784	12823	12246	15601	7396	7508	12736	11655	20288	9092	12877	5620	6192	5575	6437	4121	3440	5235	4033	3813	4646
8001	22579	15567	19221	16388	18848	16522	15132	19663	8356	11013	17443	15537	23286	16281	14509	7342	6433	6709	7603	6599	4556	6273	5641	5176	5492
8029	3005	1576	2487	1930	2171	2154	1623	2586	664	528	1862	1970	3098	1060	1957										
8035	27094	21338	22821	19784	22083	21324	19198	24463	12820	15294	21260	20630	27998	21642	20481	11430	9901	10370	11930	10178	7610	10387	9097	8285	8773
8050	13561	6751	9382	8081	8981	8063	7497	11231	5233	7288	9001	9108	18572	7364	5930	4464	4609	3701	4041	3429	2462	3682	2930	3230	3872
8079	15605	9600	11000	9000	9600	9600	9000	13100	4900	7700	10400	10100	18200	10300	9000	4200	3900	3800	4700	3700	2400	3600	3000	3000	3000
8083	19045	13879	14556	12714	14454	13350	12173	17142	7493	9268	13351	13855	19721	13373	13324	6368	5246	5633	6954	5956	4179	5639	4820	4484	5033
8096	NT																								
8103	4090	2574	2874	2411	2184	2750	1814	3628	806	1011	2171	2521	3516	1271	2701	630	603								
8107	19258	14688	15835	13644	15819	12940	13947	17681	7854	9808	15606	15138	20026	14434	14273	8185	6882	7306	8336	6721	4601	6908	6250	5269	5377
8109	22203	14934	17554	15198	17849	16028	14575	19639	8655	10056	16741	15042	23204	15824	13971	7141	6270	6478	7719	6659	4324	6313	5548	5072	5094
<b>Avg</b>	18202	12276	13976	12246	13720	12569	11563	15849	6795	8406	12936	12590	19164	11940	11276	6126	5483	5784	6890	5672	3967	5619	4850	4491	4882
<b>Std</b>																									
<b>Dev.S</b>	6151	4923	5141	4934	5295	4800	4651	5543	2805	3525	4923	4539	6411	5459	4669	2268	1934	1770	2189	1964	1278	1745	1543	1364	1477
<b>MFI</b>																									
<b>%CV</b>	34%	40%	37%	40%	39%	38%	40%	35%	41%	42%	38%	36%	33%	46%	41%	37%	35%	31%	32%	35%	32%	31%	32%	30%	30%

Blue = DSA against cell #079 only  
 Gold = DSA against cell #080 only  
 Green = DSA against cell #079 and #80

**Table 16. Individual laboratory results for Serum #081 (cont.) - class I by Luminex**

**** Serum 81 ****																							
Ctr	Cw18	Cw6	B35	B41	B61	B39	B45	B50	A11	B60	B62	B78	B48	B72	B81	B38	B51	B82	A66	B2708	Other	Manufacturer	
54	11814	12442	3471	3952	3785	5981	3007	2996	16591	3328	2310	4922	2867	2366	5079	549	2544	3516	17228	5259	Cw4,B77,B37,Cw17	One Lambda	
206			3189	4151	3727	6139	3189	3030	16004			3710			4540				16731			One Lambda	
230	13300	11789	3408	3845	3730	6540	3262	2912	18228	3027	2565	4161	2950	2877	4889				2960		4679	One Lambda	
774	6332		3053	3031	2785	4977	2653	2401	9975	2499	2080	3508	2391		3675			2285	2525	10040		B27,Bw6	One Lambda
792	11492	10013	3072	3558	3444	5571	2557	2447	14712	2608	2060	4045	2499	2133	3764	2062	2833	2571	13968			Cw4,B27,B77,B37	One Lambda
836	11924	12556	5337	3623	4342	7281	3093	2891		3160	3012	4878	3562	2385		2429	2164			5257		Cw4,B77,B37,B8101 >	One Lambda
1160	8348	8700	2783	2698	2661	4052	2345	2222	11959	2354	1705	3523	1994	1790	3154	1309	1687	2562		3347		Cw4,B53,B77,B37 >	One Lambda
2400	11383	9749	3237	3627	3297	5357	2911	2660	15451	2676	2563	3698	2845	2597	4336	2100	2344	2723	15942			B27	One Lambda
3224	10595	9592	3307	3759	3541		3293	3209		2906	2726		2836	2769		2029	2166			4388		Cw4,B53,B77,B37 >	One Lambda
3753	7480	5974	3579	3748	3428	5731	3173	2718	11509	2970	2611	3543	2996	2511	4298	2063	2247	3008		4287		B53,B77,Bw6,A6601	One Lambda
4661	2746	3776	880	869	714		881	886		658	867							902		1735		B8101,B7801,A1101,A1102 >	Lifecodes
4985	9092	9822	3100			4882			13701			4452			3932				12803			B27,B37	One Lambda
8001	13595	11642	3751	4324	3917	6511	3330	3315	16928	3357	2843	3922	3307	2892	4848	2118	2233	3348	16954			Cw4,B27,B53,B77 >	One Lambda
8029		911							2754										2266			A1101,A1102	Lifecodes
8035	16734	14515	6205	7444	6377	10538	6214	6035	21252	5715	5218	7204	5905	5456	8117	4486	4047	5880		8303		Cw4,B53,A3,B77 >	One Lambda
8050	5096	5728	2286	1985	1804	3699	1628	1602	7910	1587	1186	3523	1445	1291	2385	1568	1849	1906		2494		Cw4,B77,B37,Bw6 >	One Lambda
8079	7300	6300		2400	2300	3900														2600		B8101,B7801,A1101,A1102 >	One Lambda
8083	10849	9247	3207	3910	3240	5755	3120	3056	14134	2862	2551	3643	2828	2562		2016			13456			B27,B8101,B8201	One Lambda
8096	NT																						
8103	954	1275							2893										2427			B15,B14,A1101,A1102 >	Lifecodes
8107	11127	10892	3783	4845	4638	6583	3835	3898		3626	3233	5062	3636	3382	5558	2280	3085	3709		5236		A1101,A1102,A6601	One Lambda
8109	12338	11289	3391	4301	4088	6577	3448	3294	17456	3437	2942	3961	3188	2915	4787	2013	2169	3277	16879			B27,B77	One Lambda
<b>Avg</b>	9605	8748	3391	3671	3434	5887	3055	2916	13216	2923	2530	4235	3017	2709	4526	2079	2435	2991	12609	4326			
<b>Std</b>																							
<b>Dev.S</b>	3904	3798	1094	1340	1196	1577	1080	1062	5216	1051	966	952	980	944	1324	874	607	1138	5535	1803			
<b>MFI</b>																							
<b>%CV</b>	41%	43%	32%	37%	35%	27%	35%	36%	39%	36%	38%	22%	32%	35%	29%	42%	25%	38%	44%	42%			

Blue = DSA against cell #079 only  
 Gold = DSA against cell #080 only  
 Green = DSA against cell #079 and #80



**Table 17. Individual laboratory results for Serum #082 - class I by Luminex**

**** Serum 82 ****																										
Ctr	A25	A32	B13	B35	B37	B38	B41	B44	B45	B46	B47	B49	B50	B51	B52	B53	B56	B57	B58	B59	B62	B63	B71	B72	B75	
54	15551	18046	17047	17140	13047	20032	9810	15603	9708	10207	8600	22361	19947	22206	21356	20984	18621	21965	22237	18420	18490	21663	19499	18299	19336	
206	13385	15865	15181	16177	9038	17901	8452	10730	8628	9554	7182	21730	19617	21047	20036	19955	17917	17907	18614	18581	18187	19965	18910	18338	16404	
230	17754	20853	19925	20147	11613	23786	11318	17554	11993	12656	10270	27281	24193	27581	24643	25257	22176	25246	25166	23380	22298	25955	22639	22378	20503	
774	12215	14021	16495	16847	10352	19751	8891	13758	9584	10763	8041	23339	21022	23280	21399	21895	18496	21492	20667	20358	19163	21419	18968	19576	16807	
792	13276	17425	16633	16091	9702	19446	8304	13780	8622	9835	8257	25005	20802	24244	22398	21691	18352	20365	19806	19888	18877	21381	18853	19376	17129	
836	16014	17178	17594	20499	12289	20651	9182	15534	9901	10398	8438	24838	21304	25107	22283	21279	19369	21964	22319	18675	23612	25545	20052	19200	20388	
1160	12542	15079	13966	13633	9603	16528	6308	12113	6894	7587	6097	22933	17559	21703	19425	18583	16235	18657	18937	15895	15444	20333	15283	15479	14539	
2400	14938	18261	15273	18516	11082	21323	6452	13842	9515	11001	9229	23688	21315	23728	23367	22141	18173	21539	20844	20891	19306	22998	19878	19735	15636	
3224	14253	17074	16264	15463	9642	18974	9740	14727	10144	11392	8685	21473	19835	21519	19599	20090	18116	19358	19040	18313	18112	19781	18907	17592	16792	
3753	12941	15631	12813	16338	8955	19044	7464	11283	7944	9747	6825	23278	20254	23038	21962	20906	19141	19496	20109	19700	18647	21010	18438	19268	14424	
4661	6347	6016	4795	7274	3549	10276	2212	5974	2660	2279	3539	16582	12176	13419	12770	13084	8523	11354	9580	9657	10973	14266	9778	9648	8340	
4985	10296	12743	11958	11494	8427	14890	5192	10406	5668	6142	4556	20342	15209	19998	18151	16245	14212	16761	17314	13891	12743	18943	13925	13553	13513	
8001	15599	18386	18545	18944	11103	22377	10893	15759	11071	11805	10015	24414	22081	24029	22877	23209	20508	22638	22546	21511	21132	22474	21166	21201	19015	
8029	2047	2398	1534	2947	941	3225	539	1619	776	548	897	7475	4462	3807	4382	5018	3261	4328	3357	2821	3919	6791	3806	3110	2722	
8035	18976	22565	18769	21158	14189	25580	12861	17332	13637	14684	12195	28158	24643	27691	25525	26932	22681	25330	25378	24435	23682	25800	23707	23599	19299	
8050	9164	10746	10113	12750	8546	15639	5688	9257	5950	6376	5076	24188	17418	21756	20396	17677	15330	17322	18157	15185	14452	20185	15471	14753	12046	
8079	11000	14500	13600	12800	7500	16200	6700	9300	6900	7500	6300	20000	17300	19700	18000	17300	14900	15900	16300	16600	15820	17500	15300	15500	13100	
8083	13743	17246	15555	15295	9685	18390	8716	13282	8705	9245	7538	21327	18685	21181	19603	20045	17013	19320	18564	18637	17243	19307	16647	17200	15877	
8096	NT																								NT	
8103	2637	2952	2898	4031	1603	4996	917	2537	1031	1052	1767	10092	6154	7062	8447	7096	4521	5366	4752	4951	5232	8408	5392	5096	4531	
8107	13271	17128	15036	15146	9742	17327	8255	12829	8755	9502	8372	20242	18178	20308	18498	18638	16915	18347	17890	17758	16940	18623	16864	16744	15248	
8109	15100	17411	18050	17404	10891	21417	9756	15506	10894	11337	9485	24099	20030	23152	21560	21232	18742	20615	21158	20569	19368	21460	20156	19742	18029	
<b>Avg</b>	12431	14834	13907	14766	9119	17512	7507	12035	8047	8743	7208	21564	18199	20741	19366	19012	16343	18346	18225	17148	16840	19705	16840	16637	14937	
<b>Std</b>																										
<b>Dev.S</b>	4376	5305	5128	4946	3386	5543	3242	4380	3351	3707	2801	4970	5114	5908	5121	5249	5087	5465	5752	5466	5168	4872	5113	5190	4774	
<b>MFI</b>																										
<b>%CV</b>	35%	36%	37%	33%	37%	32%	43%	36%	42%	42%	39%	23%	28%	28%	26%	28%	31%	30%	32%	32%	31%	25%	30%	31%	32%	

Blue = DSA against cell #079 only  
 Gold = DSA against cell #080 only  
 Green = DSA against cell #079 and #80

**Table 17. Individual laboratory results for Serum #082 - class I by Luminex (cont.)**

**** Serum 82 ****																		
Ctr	B77	A23	A24	B60	B61	B76	B55	B78	Cw10	B18	B64	Cw9	B39	B54	B48	B65	Other	Manufacturer
54	20295	6499	7604	7211	7054	6224	4723	14915	7667	3929	2450	6149	2473	2857	2741	2818		One Lambda
206	20094	4353	3693	6041	6794	3851	3882	11331										One Lambda
230	26687	6296	5943	7863	9155	5348	5610	14873										One Lambda
774	21318	2862		6187	7003	6556	5221	13038	6313	3432	3062		2299	2186	2124	2157	Bw4	One Lambda
792	21608	5558	5135	6009	6894	5277	5348	12614	5959	3536	2571	3888	2354	2035	2356	1776		One Lambda
836	21526	5963	6228	7049	9503	5977	4252		7057	3378	2243	5566	6254	2541	20747	2569	A2403,B7801,B4005>	One Lambda
1160	17102	4349	5307	4562	4961	4358	3477	11999	5562	2592	1618	4312	1595	1832	1738	1645		One Lambda
2400	22427	6060	5318	6900	6904	5698	5910	13477	5346	3738	2553	5053	2533	2241	2711			One Lambda
3224	19946	6479	6606	6997	7842	5436	6055		6849	3760	3174	5067	2899	2702	2384	1828	A2403,B7801	One Lambda
3753	21884	3737	2420	5612	5774	4291	4298	11745	4239	2362	2077	3691	1667	1487	1663	1625		One Lambda
4661	12802	776	1176	1546	1630	1160			1024								A2403,B7801	Lifecodes
4985	16190	3976	5260	3633	4311	3469		9785	4269			3005						One Lambda
8001	23498	5474	4806	7843	8479	4654	5013	13680	6918	2734	2528	4364	2308	1971	1390	1990		One Lambda
8029	4185							1764										Lifecodes
8035	25814	8676	7482	9494	9918	8085	7288	16908	7705	5267	3996	6963	3943	3445	3430	3028	B67,Bw4	One Lambda
8050	17439	1607	1393	3854	3997	3232	2775	11295	3334	1685	1517	2743	1079	1345		1701		One Lambda
8079	17800	4000	3800	4700	5100	3800	3800		4300	2200		2600					A2403,B7801	One Lambda
8083	19358	6006	5714	6735	7002	4849	4983	11525	6541	3182	2276	4577	2237	2344	2757		A3,B42	One Lambda
8096																		
8103	7017		653					2773			694					676	B40,B15,B70,A2403>	Lifecodes
8107	19313	6123	5996	5959	5771	5638	5577	11321	5999	3702	2643	4663	2523	2334	2781			One Lambda
8109	21380	5683	5008	6979	8385	6174	5458	12861	6932	3777	2617	5101	2555	2278	2522	1946		One Lambda
<b>Avg</b>	18937	4972	4713	6062	6657	4951	4922	11524	5648	3285	2401	4516	2623	2257	3796	1980		
<b>Std Dev.S</b>	5435	1876	2034	1808	2081	1510	1097	3879	1750	873	766	1223	1235	541	5123	622		
<b>MFI %CV</b>	29%	38%	43%	30%	31%	30%	22%	34%	31%	27%	32%	27%	47%	24%	135%	31%		

Blue = DSA against cell #079 only  
 Gold = DSA against cell #080 only  
 Green = DSA against cell #079 and #80

**Table 18. Individual laboratory results for Serum #083 - class I by Luminex**

**** Serum 83 ****																													
Ctr	A2	A68	A69	B57	B62	B63	B75	B76	B58	B72	B77	B46	B49	B50	B71	Cw18	Cw2	Cw6	Cw15	Cw17	B56	Cw5	Cw4	B52	B51	B13	Other	Manufacturer	
54	16718	10691	10507	8627	7911	8731	7093	6656	6208	5186	5630	4030	4724	4409	5185	7236	8141	8266	9272	6084	3751	9069	4584	2732	2929	2506	B35,B53,B78	One Lambda	
206	15309	9155	9976	7741	8805	4991	6637	6659	5409	5495	6071	4035	4596	4550	5043						3505							One Lambda	
230	16310	9895	9034	8372	9078	4874	7198	6876	5611	6186	6683	4439	4759	4606	5352						3779							One Lambda	
774	11827	6187	6562	6659	7274	4368	5335	5567	4386	4428	5071	3470	3698	3771	4124	5914	6003	5417	7548	5298	2886	6840		2066	2303			One Lambda	
792	12594	7177	7253	6275	6889	3963	5228	5138	4139	4356	4999	3398	3481	3480	4004	5355	4800	4841	5786	3974	2758	5666	2811	2073	2262	1857	B35,B53	One Lambda	
836	18074	10647	9540	8208	8150	6951	7214	6345	5841	4951	5249	3702	4647	4338	4990	7281	8957	8201	9170	5448	4926	9010	4097	2506	2787	2310	B35,B53,C403	One Lambda	
1160	10209	5921	5908	5055	4829	3214	4165	3871	3435	3082	3198	2336	2806	2646	3061	3908	4197	4287	4685	2944	2047	4543	2423	1612	1798	1438	B35,B53,A11>	One Lambda	
2400	14648	8411	9755	7537	8109	5015	5301	6572	5392	5157	5941	4092	4137	4419	4955	6081	5790	5612	6885	5683	3355	6872	3942	2636	2843	2277	B35,B53	One Lambda	
3224	14067	8052	8714	7144	8164	4739	5871	5511	5379	5209	5753	3847	4439	4423	4900	6689	6397	6461	8113	5355	3606	7818	3448	2655	2924	2311	B35,B53,B44>	One Lambda	
3753	11516	6246	7005	6719	7370	4141	4555	5614	4530	4680	5326	3463	3812	3930	4240	7162	6724	6389	8734	5791	2973	8274	3671	2149	1836	1751	B35,B53,B55	One Lambda	
4661	5662	2911	2164	2292	2886	1600	1973	1828	1376	1360	1770	609	1317	1280	1244	1785	1956	714	1918	1423		712	2720					Lifecodes	
4985	13588	9334	7969	7327	6355	4882	3814	5985	4946	4119	5023	3348	3527	3386	4240	4707	5444	5948	6010	3865		7009					B18	One Lambda	
8001	16111	9772	9954	7864	9023	5444	7142	6955	5620	5979	6623	4476	4717	4786	5462	6408	5928	6384	7142	5674	3824	7628	3965	2789	3000	2499	B35,B53,A24>	One Lambda	
8029	1811	1012	705	798	949	676	597	645			511					535	629	639									Cw403,A203	Lifecodes	
8035	17555	11152	12324	9238	10266	5861	6682	8030	6528	6629	7329	5360	5558	5609	6037	9181	8410	8399	10720	7864	4518	10093	4866	3140	2824	2785	B35,B53,A24>	One Lambda	
8050	8841	5224	5011	4429	4632	2872	3241	3529	3010	2783	3017	2018	2497	2316	2843	3590	3663	3632	4053	2867	1873	3998	2245	1276	1491	1147	B35	One Lambda	
8079	10500	6300	7000	4900	5100	2900	4300	4000	3300	3400	3700	2600	2700	2800	3000	4300	3800	3700	4400	3500	2100	4300	2200				A203	One Lambda	
8083	14179	9332	9646	7558	8038	4803	6545	6314	5385	4974	6257	4011	4472	4305	4774	7521	6894	6765	8490	6582	3618	8220	4337	2643	2846	2253	B35,B53	One Lambda	
8096	3216	2200	1114	2311	1983	1187	1909	3412	1639	1213		1542	519	4363	705	1317	1409	1771	1383		487		1473	2152	2537	1601	B35,B53,A11>		
8103	2964	1434	1091	1256	1426	1037	1084	933	706	754	919					868	1118	1170	1502	984		977	1278				Cw403,A203,E	Lifecodes	
8107	11842	7047	7594	6416	6682	4142	5224	5046	4424	4183	5152	3616	3600	3588	4160	5778	5391	5105	6481	4795	2800	6525	3095	2157				One Lambda	
8109	13296	7282	7181	6416	6229	4374	5396	5482	4374	4375	5147	3430	3414	3744	4188	6161	4934	5680	7184	4517	2793	6483	2960	2035	2263	1791	B35,B53,B78>	One Lambda	
<b>Avg</b>	11856	7063	7091	6052	6370	4126	4841	5044	4364	4214	4732	3391	3671	3837	4125	5089	5029	4969	6288	4377	3089	6335	3183	2308	2475	2040			
<b>Dev.</b>																													
<b>S</b>	4756	3020	3277	2440	2623	1927	2031	1984	1606	1610	1875	1100	1233	991	1366	2429	2392	2407	2709	1960	1038	2596	1056	485	491	480			
<b>MFI</b>																													
<b>%CV</b>	40%	43%	46%	40%	41%	47%	42%	39%	37%	38%	40%	32%	34%	26%	33%	48%	48%	48%	43%	45%	34%	41%	33%	21%	20%	24%			

Blue = DSA against cell #079 only  
 Gold = DSA against cell #080 only  
 Green = DSA against cell #079 and #80

**Table 19. Individual laboratory results for Serum #084 - class I by Luminex**

**** Serum 84 ****																											
Ctr	B35	B46	B49	B50	B51	B52	B53	B56	B57	B58	B62	B63	B71	B72	B75	Cw15	Cw6	B18	B37	B77	Cw17	Cw18	Cw2	Cw4	Cw5	B78	
54	17393	9293	14069	12821	18634	12262	16892	13567	10789	11286	11058	12368	15078	11065	15913	20725	17988	6382	4718	13028	11147		17365	14168	20444	12126	
206	17695	10641	14145	13508	18137	12761	18167	13647	10160	10075	12989	11061	15648	12840	15581	21814	15091	6575	3975	15359		18181			18829	15383	
230	20161	11976	15175	15163	21592	14530	20154	15406	12040	11379	14300	12389	17516	14153	17821	26273	16735	7498	4470	16863	14899	21561	16598	13251	22873	17408	
774	16088	9527	11799	12139	17163	11471	16098	12068	9573	8899	11243	9927	12798	11103	13543	21693	14552	5619	3244	13674	12724	18541	14354	11749	20465	13899	
792	15939	9477	12021	11776	17311	11484	15911	11819	9277	8990	11047	10083	13606	10977	13993	22014	14655	5972	3920	13310	10707	18750	13862	11462	19519	13277	
836	21032	10191	14943	13762	19729	13279	17614	14819	11150	11513	14988	16638	16183	11985	17942	21339	17895	6557	4900	13284	9511	18166	16684	12923	20502	17656	
1160	12678	7371	10781	9794	14183	9620	11875	9683	8274	8323	9038	9150	11035	8476	11842	17162	13136	4479	2971	9804	7736	14285	12688	10828	16538	12097	
2400	17012	10638	13776	12999	18275	12245	17944	13219	10296	10570	12480	11317	14601	12539	14131	21644	14967	6704	3906	14212	12638	18171	14547	12025	19332	14789	
3224	16218	10701	13068	12772	16863	11710	16259	12616	10174	10549	11890	10330	14219	11453	14100	20376	13378	6728	3587	13386	10063	16240	12696	9816	17659		
3753	16351	10200	12939	12357	17357	11512	16473	12329	9623	8797	11746	10314	14121	11319	13073	22826	15458	5073	3010	14220	13495	20140	15239	13454	20967	13885	
4661	7190	2432	5650	5926	6194	4411	7722	4736	3826	2947	5480	5092	6361	5046	6210	3714	6416	1438	998	6182	3298	4745	3720	6526	3775		
4985	15189	8907	12527	11283	16466	11288	14067	12503	9746	10400	10974	10532	13517	10738	14017	18768	15678	6077	4118	11546	7429	15294	12668	9590	17858	14798	
8001	19567	12043	15275	14888	20486	14371	19295	15044	11268	11160	14516	12298	16712	14188	16836	22994	15706	7018	3993	17058	11150	19520	13626	11346	20423	17068	
8029	6313	1909	4399	4321	3450	2660	6443	3997	3240	2303	4298	4727	5509	3835	4942	2266	4637	1129	806	4384	3308	3761	3176	1236	3097	5227	
8035	22604	14565	17851	17657	22595	16242	22942	17518	13877	14159	17294	14301	19170	16597	18285	27651	18637	9629	6381	18859	15920	22565	17252	14531	23783	19289	
8050	11035	5431	8256	7416	11777	6986	10359	7508	5584	5681	6479	6641	9287	6491	9308	18356	14887	2951	2180	8366	9217	16579	14030	13289	18869	10511	
8079	13800	8000	10600	10400	14300	9400	14200	9800	7800	7500	9900	8500	11400	9000	12000	18400	12200	5100	3100	11700	11000	15900	12100	9900	16200		
8083	16044	10018	12724	12076	17251	11694	16425	12321	9854	9598	11588	9889	14045	11501	14073	20291	13792	6441	4346	13784	12066	16849	13496	11169	17487	13830	
8096	5871	2747	2037	3347	3064	3154	4667	4155	1869	1237	3225	2074	4960	3403	4034	1659	2465	797	1163		2087	784	2209	5532		4497	
8103	3191	902	2191	2048	2316	1952	3343	1627	1477	1125	1983	1937	2666	1905	2553	1528	2500			2464	1867	2170	1916	2942	2156	2623	
8107	12675	7739	10158	9072	13721	9385	12659	10153	8204	8053	9227	8736	10810	9192	11460	16635	11804	5040	3101	11205	10044	14995	11305	9426	14779	10390	
8109	16087	9904	13669	12781	17688	12338	16725	13012	9948	9133	11936	10459	14370	11936	14764	21715	14531	5835	3401	13983	9497	18107	12919	10349	17987	14435	
<b>Avg</b>	14552	8391	11275	10832	14934	10216	14374	10979	8548	8349	10349	9489	12437	9988	12565	17720	13050	5383	3442	12222	9514	15014	12021	10262	16835	12799	
<b>Std</b>																											
<b>Dev.S</b>	5114	3590	4278	4001	5969	3978	5101	4167	3313	3559	3928	3603	4322	3769	4521	7875	4740	2196	1345	4089	4003	6406	4905	3541	6160	4521	
<b>MFI</b>																											
<b>%CV</b>	35%	43%	38%	37%	40%	39%	35%	38%	39%	43%	38%	38%	35%	38%	36%	44%	36%	41%	39%	33%	42%	43%	41%	35%	37%	35%	

Blue = DSA against cell #079 only  
 Gold = DSA against cell #080 only  
 Green = DSA against cell #079 and #80

**Table 19. Individual laboratory results for Serum #084 - class I by Luminex (cont.)**

**** Serum 84 ****					
Ctr	Cw10	Cw9	Cw12	Other	Manufacturer
54	8620	7985	4193	B54,Cw8,Cw14	One Lambda
206					One Lambda
230					One Lambda
774	6714	5711			One Lambda
792	6841	5524	4013		One Lambda
836	8746	7530	3423	Cw403,B48,B44,B54 >	One Lambda
1160	5815	5161	2684	B54	One Lambda
2400	6648	6352	3275		One Lambda
3224	7943	6612	3721	B44,B54,A25,Cw14 >	One Lambda
3753	6205	5853	2651		One Lambda
4661	1669	1186		B7801	Lifecodes
4985	7604	6701	3833		One Lambda
8001	8679	7134	2332	B44	One Lambda
8029	1210	957		Cw403	Lifecodes
8035	9852	9759	4984	B44,B45,B54,A25 >	One Lambda
8050	3820	3629	2617		One Lambda
8079	6000	4900	2900	B7801	One Lambda
8083	7790	6437	3423		One Lambda
8096	2580	3916	3372	A2,B61,A66,B13 >	
8103				Cw403,B15,B7801	Lifecodes
8107	6399	4828	3343		One Lambda
8109	7436	5850	2103		One Lambda
<b>Avg</b>	6346	5580	3304		
<b>Std Dev.S</b>					
<b>MFI %CV</b>	38%	38%	23%		

**Table 20. Individual laboratory results for Serum #081 - #082 class II by Luminex**

**** Serum 81 ****					**** Serum 82 ****							
Ctr	DQ2	DP19	Other		Ctr	DR11	DR17	DR18	DR52	DQ7	Other	
54	7168	1730		One Lambda	54	5865	5362	4805	16209			One Lambda
206	6941			One Lambda	206	5358	4705	4301	11870			One Lambda
230	5367			One Lambda	230	8263	6862	5653	18407			One Lambda
774	5866			One Lambda	774	5145	3865	2752	13996			One Lambda
792	4860	2034		One Lambda	792	4273	4484	3844	14058			One Lambda
836	7968	1552	DPA1*01,DQA1*02,DQA1*03,DQA1*04>	One Lambda	836	6272	5173	4545	16944	1571	DQ8,DQ9,DP18,DP28 >	One Lambda
1160	3960	1544		One Lambda	1160	3045	3158	2948	10857			One Lambda
2400	4016			One Lambda	2400	4835	5206	4710	11983			One Lambda
3224	5560	1244		One Lambda	3224	4738	4124	3906	13242	1177	DQ8,DQ9	One Lambda
3753	4198			One Lambda	3753	4512	3818	3144	10227	1145		One Lambda
4661	899			Lifecodes	4661	2202	1827	1226	6240			Lifecodes
4985	5119			One Lambda	4985	4077	4378	3681	13737			One Lambda
8001	7228	1449		One Lambda	8001	6054	5500	4880	17576	1406	DQ8,DQ9,DP18	One Lambda
8029	NT			Lifecodes	8029	1780	2095	2345	5857			Lifecodes
8035	6007	2188	DR16,DR52,DQA1*01,DQA1*05	One Lambda	8035	6860	6399	5809	13755	1727	DPw2,DP10,DP18,DPA1*01>	One Lambda
8050	4392	2081		One Lambda	8050	5221	4372	2900	10801			One Lambda
8079	2600		DQA1*05	One Lambda	8079	3700	3900	3400	8000			One Lambda
8083	5530			One Lambda	8083	4271	3756	3469	11994			One Lambda
8096	NT				8096	NT						
8103	912			Lifecodes	8103	1515	1317	1512	5332		DR3	Lifecodes
8107	3477			One Lambda	8107	4219	4015	3755				One Lambda
8109	7129			One Lambda	8109	5342	4974	4150	15165			One Lambda
<b>Avg</b>	4960	1728			<b>Avg</b>	4645	4252	3702	12313	1405		
<b>Std Dev.S</b>	1973	339			<b>Std Dev.S</b>	1643	1377	1195	3808	250		
<b>MFI %CV</b>	40%	20%			<b>MFI %CV</b>	35%	32%	32%	31%	18%		

Blue = DSA against cell #079 only

Gold = DSA against cell #080 only

Green = DSA against cell #079 and #80

**Table 21. Individual laboratory results for Serum #083 - #084 class II by Luminex**

**** Serum 83 ****											
Ctr	DQ8	DR4	DQ9	DR53	DQ6	DQ4	DQ5	DR1	DQA1*01	Other	
54	10985	14708	11540	6582	7186	4761	3226	1675			One Lambda
206	6840	13854	7091	7122							One Lambda
230	7258	15619	7051	6500							One Lambda
774	9152	12083	9871	5276	5284		2277				One Lambda
792	7887	12670	8000	4298	4739	3171	1834				One Lambda
836	11848	16112	12558	7482	7373	5043	3302	1908	7373	DQ2,DQA1*01	One Lambda
1160	7270	9602	7420	3022	4735	3199	2221				One Lambda
2400	7320	13879	7342	4897	3846	4426	2832				One Lambda
3224	9086	12443	9372	4650	6365	3968	2775	1388	6365		One Lambda
3753	6759	11107	6851	4740	3571	1991	1933				One Lambda
4661	2694	7501	2695	1823	1597	956					Lifecodes
4985	6997	11926	7027	4202	4125						One Lambda
8001	11726	17217	12105	6409	6604	5363	3297	1637		DQA1*03	One Lambda
8029	2737	7745	2532	1891	1538	821	613		1538	DR7,DR9,DQ7	Lifecodes
8035	8039	13901	8280	6267	4232	2509	2314	1545	3845	DR9,DQA1*01	One Lambda
8050	6732	12295	6833	5358	3171	2129	1759	1211			One Lambda
8079	4000	9500	4000	2800	2500				2400	DQA1*03	One Lambda
8083	9336	11606	9519	5242	6002	3930	2657				One Lambda
8096	603	573								DR11,DQ7	
8103	1839	5949	1703	1465	961					DQ3	Lifecodes
8107	4376	7094	6653	2807	3896						One Lambda
8109	6947	13121	7180	4395	3850	2839	1655	1179			One Lambda
<b>Avg</b>	6838	11387	7411	4630	4293	3222	2335	1506	4304		
<b>Std Dev.S</b>	3071	3851	2941	1788	1876	1442	754	264	2508		
<b>MFI %CV</b>	45%	34%	40%	39%	44%	45%	32%	17%	58%		

**** Serum 84 ****					
Ctr	DQ7	DQ8	DQ9	Other	
54	14636	1578	1965		One Lambda
206	9874				One Lambda
230	13756				One Lambda
774	13040				One Lambda
792	10938				One Lambda
836	15223	1888	2176	DQA1*02,DQA1*03,DQA1*05>	One Lambda
1160	9314				One Lambda
2400	8982				One Lambda
3224	12870	1524	1064		One Lambda
3753	7963				One Lambda
4661	2481				Lifecodes
4985	11351				One Lambda
8001	14317	1877	2137		One Lambda
8029	844				Lifecodes
8035	11118	1922	1989	DQA1*03,DQA1*05,DQA1*06	One Lambda
8050	10054	1389	1543		One Lambda
8079	8000			DQA1*05,DQA1*06	One Lambda
8083	11344				One Lambda
8096	453	218		DR4,DR11,DR13,DR14>	
8103	NT				Lifecodes
8107	8388				One Lambda
8109	12513	1337	1645		One Lambda
<b>Avg</b>	9879	1467	1788		
<b>Dev. S</b>	4210	554	398		
<b>MFI %CV</b>	43%	38%	22%		

Blue = DSA against cell #079 only

Gold = DSA against cell #080 only

Green = DSA against cell #079 and #80

# Paper Challenge



**Table 22. Individual Virtual crossmatch results for Serum #83 vs Donor #V1**

Donor #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-DPB1\*04:01-DPB1\*17:01:01G

Center	Patient	CPRA	Virtual T Cell Prediction	Class I DSA (MFI)	Virtual B-cell prediction	Class II DSA (MFI)	Risk Assessment	Comments
54	83	100	Positive	Cw6 (8266) B53 (1957) A68 (10961)	Positive	DQ6 (2367)	Unacceptable	
206	83	87	Positive	A68 (9155)	Positive		Unacceptable	
230	83	27	Positive	A68 (9895)	Positive	DQ6 (7000)	Unacceptable	
774	83	98	Positive	Cw6 (5417) A68 (6187)	Positive	DQ6 (5284)	Unacceptable	
792	83	99	Positive	Cw6 (4841) B53 (1589) A68 (7177)	Positive	DQ6 (4739)	Unacceptable	
836	83	100	Positive	Cw6 (8201) B53 (1764) A68 (10647)	Positive	DQ6 (2777) DQA1*01 (2777)	Unacceptable	DQB1*03:01/DQA1*05:01 cannot be assessed. DQB1*06:04/DQA1*01:02
1160	83	99	Positive	Cw6 (4287) B53 (1132) A68 (5921)	Positive	DQ6 (2011)	Unacceptable	
1461	83		Positive	Cw6 (1315) A68 (1362)	Positive	DQ6 (1041)	Unacceptable	
2400	83	99	Positive	Cw6 (5442) B53 (2047) A68 (8202)	Positive	DQ6 (2650)	Unacceptable	
3224	83	90	Positive	Cw6 (6461) B53 (2250) A68 (7838)	Positive	DQ6 (2300) DQA1*01 (2300)	Unacceptable	Cannot evaluate DSA to C*08:02
3753	83	99.45	Positive	Cw6 (6389) B53 (1752) A68 (6246)	Positive	DQ6 (3571)	Unacceptable	We recommend to decline this donor offer.
3966	83	99	Positive	Cw6 (6084) A68 (8327)	Positive	DQ6 (3029) DQA1*01 (3030)	Unacceptable	
4661	83	96	Positive	Cw6 (2714) B53 (520) A68 (2911) B65 (116) Cw8 (91) A6601 (76)	Positive	DR13 (88) DR52 (72) DQ7 (62) DQ6 (1597) DP17 (79) DP401 (61)	Unacceptable	Epitope 152RE, Epitope 67VT
4985	83	27	Positive	Cw6 (5796) A68 (8714)	Positive	No class II DSA	Unacceptable	
8001	83	100	Positive	Cw6 (6384) B53 (2239) A68 (8635)	Positive	DQ6 (3385) DQA1*01 (6604) DQA1*05 (5306)	Unacceptable	Cannot rule out DSA against C*08:02 (Not in LSAB panel); Cannot rule out DSA against DRB1*13:02 (Not in LSAB panel)
8035	83	90	Positive	Cw6 (8399) B53 (2751) A68 (11152)	Positive	DQ6 (4232) DQA1*01 (3474)	Unacceptable	As per our program, this is unacceptable--However, some programs may have other options as desensitization--if they can make sure the DSAs are not Complement binding. Our B cell Positivity is based on both Class I and II DSA.
8050	83	98	Positive	Cw6 (3632) A68 (5224)	Positive	DQ6 (3171)	Unacceptable	
8079	83	100	Positive	Cw6 (3700) A68 (5800)	Negative	No class II DSA	Unacceptable	
8080	83	100	Positive	Cw6 (9326) B53 (2308) A68 (11804)	Positive	DQ6 (3707)	Unacceptable	
8083	83	99	Positive	Cw6 (6765) B53 (2274) A68 (8204)	Positive	DQ6 (2954)	Unacceptable	Also A68, B53, and Cw6 which are expressed on B cells
8096	83		Positive	Cw6 (1771) A66 (1263) B53 (2273) A68 (2200) B65 (2135) Cw8 (1862)	Negative	No class II DSA	Unacceptable	
8103	83	22	Positive	Cw6 (1170) A68 (1434)	Positive	DQ6 (961)	Unacceptable	
8107	83	98	Positive	Cw6 (5705) B53 (1703) A68 (6542)	Positive	No class II DSA	Unacceptable	B*53:01 is technically Negative. However, the Cumulative MFI = 13350; No Class II DSA; however, the Cumulative MFI=13350
8109	83	99.6	Positive	Cw6 (5680) B53 (1583) A68 (7282)	Positive	DQ6 (3850)	Moderate	Candidate for desensitization

**Table 23. Individual Virtual crossmatch results for Serum #83 vs Donor #V2**

Donor #V2: A\*02:01-A\*26:01-B\*27:05-B\*51:08-C\*02:02-C\*16:02-DRB1\*13:01:01-DRB1\*15:01:01-DRB3\*01:01:02-DRB5\*01:01:01-DQA1\*01:02:01G-DQA1\*01:03-DQB1\*06:02:01-DQB1\*06:03:01-DPB1\*04:01:01

Center	Patient	CPRA	Virtual T Cell Prediction	Class I DSA (MFI)	Virtual B-cell prediction	Class II DSA (MFI)	Risk Assessment	Comments
54	83	100	Positive	A2 (16718) Cw2 (8141)	Positive	DQ6 (5406)	Unacceptable	
206	83	87	Positive	A2 (15309)	Positive	No class II DSA	Unacceptable	
230	83	67	Positive	A2 (16659) B51 (3070)	Positive	DQ6 (4924)	Unacceptable	
774	83	98	Positive	A2 (11827) B51 (2303)	Positive	DQ6 (5284)	Unacceptable	
792	83	99	Positive	A2 (12594) B51 (2262) Cw2 (4800)	Positive	DQ6 (3374)	Unacceptable	
836	83	100	Positive	A2 (15869) Cw2 (7504) Cw16 (11842)	Positive	DQ6 (2520) DQA1*01 (2520)	Unacceptable	B*51:08 cannot be assessed; DQB1*06:02/DQA1*01:02 or DQB1*06:03/DQA1*01:03 .
1160	83	98	Positive	A2 (10209) B51 (1798) Cw2 (4197)	Positive	DQ6 (3652)	Unacceptable	C*16:02 is not present on the SAB panel, it is very likely to be positive since it is part of C2 group which is positive.
1461	83		Positive	A2 (2096) Cw2 (1110)	Positive	DQ6 (765)	Unacceptable	
2400	83	99	Positive	A2 (15241) B51 (17992) Cw2 (5644)	Positive	DQ6 (3459)	Unacceptable	No B*51:08 beads on panel. Closest B*51 allele is B*51:01. Used that bead MFI. Reactivity to both DQB1*06:02 and 06:03
3224	83	90	Positive	A2 (14067) B51 (2924) Cw2 (6397)	Positive	DQ6 (4500) DQA1*01 (6365)	Unacceptable	
3753	83	99.45	Positive	A2 (11516) B51 (1836) Cw2 (6724)	Positive	DQ6 (3571)	Unacceptable	We recommend to decline this donor offer.
3966	83	99	Positive	A2 (13430) B51 (1636) Cw2 (5743)	Positive	DQ6 (3029) DQA1*01 (3683)	Unacceptable	
4661	83	96	Positive	A2 (5238) B27 (128) B51 (370) A26 (89) Cw2 (1956) Cw16 (125)	Positive	DR13 (88) DR15 (111) DR51 (86) DR52 (48) DQ6 (1204) DP401 (61)	Unacceptable	Epitope 144TKH,62GE,152RE; Epitope 67VT
4985	83	27	Positive	A2 (13588) Cw2 (5444)	Positive	DQ6 (3214)	Unacceptable	
8001	83	100	Positive	A2 (15910) Cw2 (5928)	Positive	DQ6 (5306)	Unacceptable	Cannot rule out DSA against B*51:08, C*16:02 (Not in LSAB panel); Cannot rule out DSA against DQA1*01:02, DQA1*01:03 (Overlap with DQB)
8035	83	90	Positive	A2 (17555) Cw2 (8410)	Positive	DQ6 (4232) DQA1*01 (4280)	Unacceptable	Note, there is no SAB for DSA B*51:08. Our B cell Positivity is based on both Class I and II DSA. DQA1*01:02 and *01:03 were both detected as DSAs.
8050	83	98	Positive	A2 (8841) B51 (1491) Cw2 (3663)	Positive	DQ6 (3171)	Unacceptable	
8079	83	100	Positive	A2 (10500) Cw2 (3800)	Positive	DQ6 (2400) DQA1*01 (2400)	Unacceptable	
8080	83	100	Positive	A2 (16806) B51 (1728) Cw2 (9135) Cw16 (10473)	Positive	DQ6 (8781)	Unacceptable	
8083	83	99	Positive	A2 (14095) Cw2 (6894)	Positive	DQ6 (4519)	Unacceptable	Also A2 and Cw2 which are expressed on B cells
8096	83		Positive	A2 (3216) B27 (1909) B51 (2537) Cw2 (1409)	Negative	No class II DSA	Unacceptable	
8103	83	22	Positive	A2 (2964) Cw2 (1118)	Positive	DQ6 (961)	Unacceptable	Class 1 antibody positivity
8107	83	98	Positive	A2 (11842) B51 (2371) Cw2 (5391)	Positive	DQ6 (2066)	Unacceptable	B*51:02 bead (2371). Donor B*51:08; bead is not in panel; DQ6 (DQA1*01:03, DQB1*06:03) (2928). DQ6 (DQA1*01:02, DQB1*06:02)(1203)
8109	83	99.57	Positive	A2 (13296) B51 (2263) Cw2 (4934)	Positive	DQ6 (3850)	Unacceptable	

**Table 24. Individual Virtual crossmatch results for Serum #83 vs Donor #V3**

Donor #V3: A\*11:01:01-A\*33:03:01-B\*55:02:01-B\*58:01:01-C\*01:02:01-C\*03:02:02-DRB1\*03:01:01-DRB1\*04:05:01-DRB3\*02:02:01-DRB4\*01:03:01-DQA1\*03:03:01-DQA1\*05:01:01-DQB1\*02:01:01-DQB1\*04:01:01-DPB1\*05:01:01-DPB1\*14:01:01:03:01-DPB1\*04:01:01

Center	Patient	CPRA	Virtual T Cell Prediction	Class I DSA (MFI)	Virtual B-cell prediction	Class II DSA (MFI)	Risk Assessment	Comments
54	83	100	Positive	B58 (6209)	Positive	DR4 (12572) DR53 (6582) DQ4 (4761)	Unacceptable	
206	83	87	Positive	B58 (5409)	Positive	DR4 (13854) DR53 (7122)	Unacceptable	
230	83	53	Positive	B58 (5611)	Positive	DR4 (14382) DR53 (6500)	Unacceptable	
774	83	98	Positive	B58 (4386)	Positive	DR4 (12083)	Unacceptable	
792	83	99	Positive	B55 (1361) B58 (4139)	Positive	DR4 (10614) DR53 (4298)	Unacceptable	
836	83	100	Positive	B55 (1274) B58 (5841)	Positive	DR4 (13126) DR53 (7842) DQ4 (5043) DQA1*03 (5043)	Unacceptable	DQB1*04:01/DQA1*03:03
1160	83	98	Positive	A11 (425) B55 (891) B58 (3435)	Positive	DR4 (7862) DR53 (3022) DQ4 (3199)	Unacceptable	
1461	83		Negative		Positive	DR4 (5130)	Acceptable-	
2400	83	99	Positive	B58 (5287)	Positive	DR4 (12682) DR53 (5175) DQ4 (2999)	Unacceptable	
3224	83	90	Positive	B55 (1599) B58 (5379)	Positive	DR4 (10590) DR53 (4650) DQ4 (3968)	Unacceptable	
3753	83	99.45	Positive	B55 (1263) B58 (4530)	Positive	DR4 (11107) DR53 (4740) DQ4 (1991) DR4 (11174) DR53 (4019) DQ4 (3171) DQA1*03 (3171)	Unacceptable	We recommend to decline this donor offer.
3966	83	99	Positive	B58 (4835)	Positive	DR4 (7501) DR17 (56) DR52 (36) DR53 (1823) DQ2 (100) DQ9 (1803) DPw5 (54) DP14 (40)	Unacceptable	Epitope 62GE; Epitope 96Y2,48Q6
4661	83	96	Positive	B55 (302) A33 (109) B58 (1376) Cw1 (137) Cw9 (150) A1101 (319)	Positive	DR4 (9914) DR53 (4202)	Unacceptable	
4985	83	27	Positive	B58 (4946)	Positive	DR4 (14276) DR53 (6409) DQ4 (5363) DQA1*03 (5363)	Unacceptable	Cannot rule out DSA against B*55:02 (Not in LSAB panel)
8001	83	100	Positive	B58 (5620) Cw10 (566)	Positive	DR4 (13901) DR53 (6267) DQ4 (2509) DQA1*03 (5089)	Unacceptable	No SAB is available for the donor's B55:02.
8035	83	90	Borderline	B58 (6528)	Positive	DR12 (12295) DR53 (5358) DQ4 (2129)	Unacceptable	
8050	83	98	Borderline	B58 (3010)	Positive	DR4 (8400) DR53 (3400) DQA1*03 (2200)	Unacceptable	
8079	83	100	Positive	B58 (3300)	Positive	DR4 (11983) DR53 (5837) DQ4 (5146)	Unacceptable	
8080	83	100	Positive	B58 (6504)	Positive	DR4 (10113) DR53 (5242)	Unacceptable	Also B58 which is expressed on B cells
8083	83	99	Positive	B58 (5385)	Positive			
8096	83		Positive	A11 (1720) B55 (957) A33 (886) B58 (1639) Cw1 (1219) Cw10 (2449) Cw3 (2981)	Negative	No class II DSA	Unacceptable	
8103	83	22	Borderline	B58 (706)	Positive	DR4 (5949) DR52 (1465)	Unacceptable	
8107	83	98	Positive	B55 (1392) B58 (4424)	Positive	DR4 (6518) DR53 (2807)	Unacceptable	B*55:01 bead (1392). B*55:02 is technically Negative.
8109	83	99.57	Borderline	B55 (1187) B58 (4374)	Positive	DR4 (13121) DR53 (4395) DQ2 (1006) DQ4 (2839)	Unacceptable	

**Table 25. Individual Virtual crossmatch results for Serum #83 vs Donor #V4**

Donor #V4: A\*02:01:01-A\*03:01:01-B\*35:03:01-B\*57:03:01-C\*04:01:01-C\*07:01:02-DRB1\*13:02:01-DRB3\*03:01:01-DQA1\*01:02:01-DQB1\*06:04:01-DPB1\*04:01:01

Center	Patient	CPRA	Virtual T Cell Prediction	Class I DSA (MFI)	Virtual B-cell prediction	Class II DSA (MFI)	Risk Assessment	Comments
54	83	100	Positive	Cw4 (4584) A2 (16718) A3 (1063) B57 (8627)	Positive	DQ6 (2741)	Unacceptable	
206	83	87	Positive	A2 (15309) B57 (7741)	Positive		Unacceptable	
230	83	52	Positive	A2 (16659) B57 (7678) B35 (2164)	Positive	DQ6 (7000)	Unacceptable	
774	83	98	Positive	A2 (11827) B57 (6659)	Positive	DQ6 (5284)	Unacceptable	
792	83	99	Positive	Cw4 (2811) A2 (12598) B57 (6275)	Positive	DQ6 (2049)	Unacceptable	
836	83	100	Positive	Cw4 (4097) A2 (15869) B57 (8208) B35 (2680)	Positive	DQ6 (2777) DQA1*01 (2777)	Unacceptable	DQB1*06:04/DQA1*01:02
1160	83	98	Positive	Cw4 (2423) A2 (10209) A3 (677) B57 (5055) B35 (1464)	Positive	DQ6 (2011)	Unacceptable	B*35:03 is not covered by SAB
1461	83		Positive	A2 (2096) B57 (1047)	Positive	DQ6 (1041)	Unacceptable	
2400	83	99	Positive	Cw4 (3809) A2 (15241) B57 (7626) B35 (2290)	Positive	DQ6 (2650)	Unacceptable	Entered MFI for B*35:01 bead.
3224	83	90	Positive	Cw4 (3448) A2 (14067) B57 (7144) B35 (2409)	Positive	DQ6 (2300) DQA1*01 (2300)	Unacceptable	
3753	83	99.45	Positive	Cw4 (3671) A2 (11516) B57 (6719) B35 (1878)	Positive	DQ6 (3571)	Unacceptable	We recommend to decline this donor offer.
3966	83	99	Positive	Cw4 (3226) A2 (13430) B57 (7495)	Positive	DQ6 (3092) DQA1*01 (3683)	Unacceptable	
4661	83	96	Positive	Cw4 (381) A2 (5238) A3 (267) B57 (2292) B35 (568) Cw7 (80)	Positive	DR13 (88) DR52 (72) DQ6 (1597) DP401 (61)	Unacceptable	Epitope 144TKH,62GE
4985	83	27	Positive	A2 (13588) B57 (7327)	Positive	No class II DSA	Unacceptable	
8001	83	100	Positive	Cw4 (3965) A2 (15910) A3 (835) B57 (7864)	Positive	DQ6 (3385)	Unacceptable	Cannot rule out DSA against B*35:03, C*07:01 (Not in LSAB panel); Cannot rule out DSA against DRB1*13:02 (Not in LSAB panel), DQA1*01:02 (Overlap with DQB)
8035	83	90	Positive	Cw4 (4866) A2 (17555) A3 (1102) B57 (9238)	Positive	DQ6 (4232) DQA1*01 (3474)	Unacceptable	There is no SAB for the donor antigen B*35:03. Our B cell Positivity is based on both Class I and II DSA.
8050	83	98	Positive	Cw4 (2245) A2 (8841) B57 (4429) B35 (1141)	Positive	DQ6 (3171)	Unacceptable	
8079	83	100	Positive	Cw4 (2200) A2 (10500) B57 (4900)	Negative	No class II DSA	Unacceptable	One Lambda Single Antigen panel does not contain B*35:03 or C*07:01 beads.
8080	83	100	Positive	Cw4 (6811) A2 (16806) B57 (9252) B35 (2353)	Positive	DQ6 (7414)	Unacceptable	
8083	83	99	Positive	Cw4 (4337) A2 (14095) B57 (7558)	Positive	DQ6 (2954)	Unacceptable	Also A2, B57, and Cw4 which are expressed on B cells
8096	83		Positive	Cw4 (1473) A2 (3216) A3 (575) B57 (2311) Cw9 (851) Cw7 (1913)	Negative	No class II DSA	Unacceptable	
8103	83	22	Positive	Cw4 (1256) A2 (2964) B57 (1256)	Positive	DQ6 (961)	Unacceptable	Class 1 antibody positivity
8107	83	98	Positive	Cw4 (3095) A2 (11842) B57 (6416)	Positive	DQ6 (1585)	Unacceptable	DQ6 (DQA1*01:02, DQB1*06:04)= 1585 MFI
8109	83	99.57	Positive	Cw4 (2960) A2 (13296) B57 (6416)	Positive	DQ6 (3850)	Unacceptable	

**Table 26. Individual Virtual crossmatch results for Serum #84 vs Donor #V1**

Donor #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-DPB1\*04:01-DPB1\*17:01:01G

Center	Patient	CPRA	Virtual T Cell Prediction	Class I DSA (MFI)	Virtual B-cell prediction	Class II DSA (MFI)	Risk Assessment	Comments
54	84	97	Positive	Cw6 (17988) B53 (16892)	Positive	DQ6 (14636)	Unacceptable	
206	84	87	Positive	Cw6 (15091) B53 (18167)	Positive	DQ7 (9874)	Unacceptable	
230	84	53	Positive	Cw6 (16735) B53 (20154)	-		Unacceptable	
774	84	93	Positive	Cw6 (14552) B53 (16098)	Positive	DQ7 (13040)	Unacceptable	
792	84	95	Positive	Cw6 (14655) B53 (15011)	Positive	DQ7 (10938)	Unacceptable	
836	84	98	Positive	Cw6 (17895) B53 (17614)	Negative		Unacceptable	DQB1*03:01/DQA1*05:01 cannot be assessed.
1160	84	95	Positive	Cw6 (13136) B53 (11875)	Positive	DQ7 (8562)	Unacceptable	
1461	84		Positive	Cw6 (4341) B53 (4713)	Positive	DQ7 (1272)	Unacceptable	
2400	84	95	Positive	Cw6 (14804) B53 (17882)	Positive	DQ7 (8902)	Unacceptable	
3224	84	84	Positive	Cw6 (13378) B53 (16259)	Positive	DQ7 (11902)	Unacceptable	Cannot evaluate DSA to C*08:02
3753	84	94.81	Positive	Cw6 (15458) B53 (16473)	Positive	DQ7 (7963)	Unacceptable	We recommend to decline this donor offer.
3966	84	95	Positive	Cw6 (14441) B53 (14478)	-	DQ7 (7470) DQA1*05 (9983)	Unacceptable	
4661	84	89	Positive	Cw6 (6416) B53 (7722) A68 (124) B65 (131)	Positive	DR13 (157) DR52 (278) DQ7 (2481)	Unacceptable	Epitope 163Lw,44RT,80K; Epitope 45EV
4985	84		Positive	Cw8 (146) A6601 (95)	Positive	DQ6 (99) DP17 (84) DP401 (23)	Unacceptable	
				Cw6 (15678) B53 (14066)	Positive	DQ7 (11351)	Unacceptable	
8001	84	98	Positive	Cw6 (15706) B53 (19295)	Positive	DQ7 (14317)	Unacceptable	Cannot rule out DSA against C*08:02 (Not in LSAB panel); Cannot rule out DSA against DRB1*13:02 (Not in LSAB panel)
8035	84	92	Positive	Cw6 (18637) B53 (22942)	Positive	DQ7 (11118)	Unacceptable	As per our program, this is unacceptable-However, some programs may have other options as desensitization--if they can make sure the DSAs are not Complement binding. Our B cell Positivity is based on both Class I and II DSA.
8050	84	95	Positive	Cw6 (14887) B53 (10359)	Positive	DQ7 (10054)	Unacceptable	
8079	84	100	Positive	Cw6 (12173) B53 (14180)	Positive	DQ7 (8000) DQA1*05 (9900)	Unacceptable	
8080	84	97	Positive	Cw6 (19782) B53 (18586)	Positive	DQ7 (14391)	Unacceptable	
8083	84	99	Positive	Cw6 (13792) B53 (16425)	Positive	DQ7 (11344)	Unacceptable	Also B53 and Cw6 which are expressed on B cells
8096	84		Positive	Cw6 (1771) A66 (1263) B53 (2273) A68 (2200) B65 (2135) Cw8 (1862)	Positive	DR13 (209) DQ7 (453) DP17 (1183)	Unacceptable	
8103	84	27	Positive	Cw6 (1170) B53 (2316)	Positive	No class II DSA	Unacceptable	Class 1 antibody positivity
8107	84	95	Positive	Cw6 (11804) B53 (12659)	Positive	DQ7 (8516)	Unacceptable	DQA1*05:01,DQB1*03:01 (DQ7) is not in panel. Average DQ7 MFI=8516.
8109	84	96	Positive	Cw6 (14531) B53 (16725)	Positive	DQ7 (12513)	Unacceptable	

**Table 27. Individual Virtual crossmatch results for Serum #84 vs Donor #V2**

Donor #V2: A\*02:01-A\*26:01-B\*27:05-B\*51:08-C\*02:02-C\*16:02-DRB1\*13:01:01-DRB1\*15:01:01-DRB3\*01:01:02-DRB5\*01:01:01-DQA1\*01:02:01G-DQA1\*01:03-DQB1\*06:02:01-DQB1\*06:03:01-DPB1\*04:01:01

Center	Patient	CPRA	Virtual T Cell Prediction	Class I DSA (MFI)	Virtual B-cell prediction	Class II DSA (MFI)	Risk Assessment	Comments
54	84	97	Positive	Cw2 (17365)	Negative	No class II DSA	Unacceptable	
206	84	87%	Positive	B51 (18137)	Positive	No class II DSA	Unacceptable	
230	84	20	Positive	B51 (21592) Cw2 (16598)	Positive	No class II DSA	Unacceptable	
774	84	93	Positive	B51 (2303) Cw2 (6003)	Negative	No class II DSA	Unacceptable	
792	84	95	Positive	B51 (17311) Cw2 (13682)	Positive	No class II DSA	Unacceptable	Class II positivity due to Class I DSA
836	84	98	Positive	Cw2 (15562) Cw16 (22676)	Positive	No class II DSA	Unacceptable	B*51:08 cannot be assessed. T/B reported together with 1000 MFI as positive cut off.
1160	84	95%	Positive	B51 (14183) Cw2 (12688)	Positive	No Class II DSA	Unacceptable	B*51:08 is not included in the panel
1461	84		Positive	B51 (3826) Cw2 (2685)	Negative	No Class II DSA	Unacceptable	
2400	84	95%	Positive	Cw2 (14407)	NT	No Class II DSA	Unacceptable	Class I (HLA -A and -B) is usually higher on B cells than T cells, not sure about density of HLA -C on B cells.
3224	84	84	Positive	B51 (16447) Cw2 (12696)	Positive	No class II DSA	Unacceptable	Presence of the strong DSA to Cw2 may cause a positive crossmatch. A physical crossmatch is recommended.
3753	84	94.81	Positive	B51 (17357) Cw2 (15239)	Positive	No class II DSA	Unacceptable	We recommend to decline this donor offer.
3966	84	95	Positive	Cw2 (11799)	Negative	No class II DSA	Unacceptable	
4661	84	89%	Positive	A2 (64) B27 (173) B51 (6194) A26 (128)	Positive	DR13 (157) DR15 (149) DR51 (108) DR52 (278) DQ6 (104) DP401 (137)	Unacceptable	Epitope 163Lw,44RT,80K
4985	84	34	Positive	B51 (16466) Cw2 (12668)	Positive	No class II DSA	Unacceptable	
8001	84	98%	Positive	Cw2 (13626)	Positive	No class II DSA	Unacceptable	Cannot rule out DSA against B*51:08, C*16:02 (Not in LSAB panel)
8035	84	92%	Positive	Cw2 (17252)	Positive	No class II DSA	Unacceptable	Strong Cw2 DSA detected. Very strong potential DSA to B*51:08 exists as strong AB to B51 were detected (22,595). But no SAB is available. Possibility of an anamnestic response to the donor's A2 antigen exists as well. Our B cell positivity based mainly on the Class I DSA; recommend real crossmatches be performed.
8050	84	95%	Positive	B51 (11777) Cw2 (14030)	Positive	No class II DSA	Unacceptable	Due to Class I
8079	84	100	Positive	Cw2 (12000)	Negative	No class II DSA	Unacceptable	
8080	84	97	Positive	B51 (20775) Cw2 (19889) Cw16 (16944)	Positive	No class II DSA	Unacceptable	
8083	84	99	Positive	Cw2 (13496)	Positive	No class II DSA	Unacceptable	Cw2 which is expressed on B cells
8096	84		Positive	A2 (3216) B27 (1909) Cw2 (1409)	Negative	No class II DSA	Unacceptable	
8103	84	27	Positive	B51 (2316) Cw2 (1916)	Positive	No class II DSA	Unacceptable	Class 1 antibody positivity
8107	84	95	Positive	B51 (13334) Cw2 (11305)	Positive	No class II DSA	Unacceptable	B*51:08 is not in panel. Average B51 MFI=13334. Overall cumulative MFI= 20000; However, cumulative MFI = 20000
8109	84	96.43%	Positive	B51 (17689) Cw2 (12919)	Positive	No class II DSA	Unacceptable	

**Table 28. Individual Virtual crossmatch results for Serum #84 vs Donor #V3**

Donor #V3: A\*11:01:01-A\*33:03:01-B\*55:02:01-B\*58:01:01-C\*01:02:01-C\*03:02:02-DRB1\*03:01:01-DRB1\*04:05:01-DRB3\*02:02:01-DRB4\*01:03:01-DQA1\*03:03:01-DQA1\*05:01:01-DQB1\*02:01:01-DQB1\*04:01:01-DPB1\*05:01:01-DPB1\*14:01:01:03:01-DPB1\*04:01:01

Center	Patient	CPRA	Virtual T Cell Prediction	Class I DSA (MFI)	Virtual B-cell prediction	Class II DSA (MFI)	Risk Assessment	Comments
54	84	97	Positive	B58 (11286) Cw1 (1206) Cw10 (7985)	Negative	No class II DSA	Unacceptable	
206	84	87%	Positive	B58 (10075)	Positive	No class II DSA	Unacceptable	
230	84	4	Positive	B58 (11379)	Positive	No class II DSA	Unacceptable	
774	84	93	Positive	B58 (8899)	Positive	No class II DSA	Unacceptable	
792	84	95	Positive	B58 (8990) Cw10 (6841)	Positive	No class II DSA	Unacceptable	Class II positivity due to Class I DSA
836	84	98	Positive	B58 (11513)	Positive	No class II DSA	Unacceptable	T/B reported together with 1000 MFI as positive cut off.
1160	84	95%	Positive	B58 (8323) Cw10 (5815)	Positive	No class II DSA	Unacceptable	
1461	84		Positive	B58 (1643) Cw10 (978)	Negative	No class II DSA	Unacceptable	
2400	84	95%	Positive	B58 (10471) Cw10 (7672)	Positive	No class II DSA	Unacceptable	Positive B Cell Crossmatch due to Class I DSAs.
3224	84	84	Positive	B58 (10549) Cw10 (7943)	Positive	No class II DSA	Unacceptable	
3753	84	94.81	Positive	B58 (8797) Cw10 (6205)	Positive	No class II DSA	Unacceptable	We recommend to decline this donor offer.
3966	84	95	Positive	B58 (9259) Cw10 (6307)	Positive	DQA1*05 (9983)	Unacceptable	
4661	84	89%	Positive	B55 (142) A33 (114) B58 (2947) Cw1 (190) Cw9 (1186) A1101 (67)	Positive	DR4 (114) DR17 (150) DR52 (98) DR53 (108) DQ2 (107) DQ9 (334) DPW5 (118) DP14 (130)	Unacceptable	Epitope 163Lw,44RT
4985	84	34	Positive	B58 (10400) Cw3 (7604)	Positive	No class II DSA	Unacceptable	
8001	84	98%	Positive	B58 (11160) Cw10 (8679)	Positive	No class II DSA	Unacceptable	Cannot rule out DSA against B*55:02 (Not in LSAB panel)
8035	84	92%	Positive	B58 (14159) Cw10 (9852)	Positive	No class II DSA	Unacceptable	Our B cell Positivity is based mainly on the Class I DSAs. No Class II DSAs that can clearly account for a B cell positivity was detected. However the possibility of an anamnestic response to the donor's DR17 antigen exists.
8050	84	95%	Borderline	B58 (5681) Cw10 (3820)	Borderline	No class II DSA	Unacceptable	Due to Class I
8079	84	100	Positive	B58 (7500) Cw10 (6000)	Negative	No class II DSA	Unacceptable	We detected DQA1*05:03 and DQA1*05:05 antibodies, but the donor possesses the DQA1*05:01 antigen, so the virtual crossmatch is negative.
8080	84	97	Positive	B58 (13217) Cw10 (10477)	Positive	No class II DSA	Unacceptable	
8083	84	99	Positive	B58 (9598) Cw10 (7790)	Positive	No class II DSA	Unacceptable	B58 and Cw10 are expressed on B cells
8096	84		Positive	A33 (886) B58 (1639) Cw10 (2449) Cw3 (2981)	Negative	No class II DSA	Unacceptable	
8103	84	22	Borderline	B58 (1125)	Borderline	No class II DSA	Unacceptable	
8107	84	95	Positive	B58 (8053) Cw10 (6399)	Positive	No class II DSA	Unacceptable	
8109	84	96.43%	Positive	B58 (9133) Cw10 (7436)	Positive	No class II DSA	Unacceptable	Candidate for desensitization

**Table 29. Individual Virtual crossmatch results for Serum #84 vs Donor #V4**

Donor #V4: A\*02:01:01-A\*03:01:01-B\*35:03:01-B\*57:03:01-C\*04:01:01-C\*07:01:02-DRB1\*13:02:01-DRB3\*03:01:01-DQA1\*01:02:01-DQB1\*06:04:01-DPB1\*04:01:01

Center	Patient	CPRA	Virtual T Cell Prediction	Class I DSA (MFI)	Virtual B-cell prediction	Class II DSA (MFI)	Risk Assessment	Comments
54	84	97	Positive	Cw4 (14168) B57 (10789)	Negative	No class II DSA	Unacceptable	
206	84	87%	Positive	B57 (10160) B35 (17695)	Positive	No class II DSA	Unacceptable	
230	84	40	Positive	Cw4 (13252) B57 (12040) B35 (20161)	Positive	No class II DSA	Unacceptable	
774	84	93	Positive	Cw4 (11749) B57 (9573) B35 (16088)	Positive	No class II DSA	Unacceptable	
792	84	95	Positive	Cw4 (11462) B57 (9277) B35 (15939)	Positive	No class II DSA	Unacceptable	Class II positivity due to Class I DSA
836	84	98	Positive	Cw4 (12923) B57 (11150) B35 (20526)	-	No class II DSA	Unacceptable	T/B reported together with 1000 MFI positive cut off.
1160	84	95%	Positive	Cw4 (10828) B57 (8274) B35 (12678)	Positive	No class II DSA	Unacceptable	B*35:03 is not covered by SAB
1461	84		Positive	Cw4 (2323) B57 (1968) B35 (4360)	Negative	No class II DSA	Unacceptable	
2400	84	95%	Positive	Cw4 (11899) B57 (10344) B35 (16967)	Positive	No class II DSA	Unacceptable	Entered MFI for B*35:01 bead. Positive B Cell crossmatch due to Class I DSAs.
3224	84	84	Positive	Cw4 (9816) B57 (10052) B35 (16218)	Positive	No class II DSA	Unacceptable	
3753	84	94.81	Positive	Cw4 (13454) B57 (9623) B35 (16351)	Positive	No class II DSA	Unacceptable	We recommend to decline this donor offer.
3966	84	95%	Positive	Cw4 (10057) B57 (9359)	Negative	No class II DSA	Unacceptable	
4661	84	89%	Positive	Cw4 (2523) A2 (64) A3 (139) B57 (3826) B35 (7190) Cw7 (190)	Positive	DR13 (157) DR52 (251) DQ6 (99) DP401 (23)	Unacceptable	Epitope 16Lw,44RT,80K
4985	84	34	Positive	Cw4 (9590) B57 (9746) B35 (15000)	Positive	No class II DSA	Unacceptable	
8001	84	98%	Positive	Cw4 (11346) B57 (11268)	Positive	No class II DSA	Unacceptable	Cannot rule out DSA against B*35:03, C*07:01 (Not in LSAB panel). Cannot rule out DSA against DRB1*13:02 (Not in LSAB panel)
8035	84	92%	Positive	Cw4 (14531) B57 (13877)	Positive	No class II DSA	Unacceptable	Poss anamnestic response to A2,Cw7. No bead for B*35:03. Our B cell Positivity is based mainly on the Class I DSAs. No Class II DSAs that can clearly account for a B cell positivity was detected
8050	84	95%	Positive	Cw4 (13289) B57 (5584) B35 (11035)	Positive	No class II DSA	Unacceptable	Due to Class I
8079	84	100	Positive	Cw4 (9900) B57 (7800)	Negative	No class II DSA	Unacceptable	One Lambda Single Antigen panel does not contain B*35:03 or C*07:01 beads.
8080	84	97	Positive	Cw4 (19295) B57 (13024) B35 (17950)	Positive	No class II DSA	Unacceptable	
8083	84	99	Positive	Cw4 (11169) B57 (9854)	Positive	No class II DSA	Unacceptable	B57 and Cw4 are expressed on B cells
8096	84		Positive	Cw4 (1473) A2 (3216) Cw3 (2981) Cw9 (851) Cw7 (1913)	Negative	No class II DSA	Unacceptable	
8103	84	27	Positive	Cw4 (1457) B57 (1477) B35 (3191)	Positive	No class II DSA	Unacceptable	Cross-reacting antibodies possible for B*35 and B*57. Class 1 antibody positivity
8107	84	95	Positive	Cw4 (9426) B53 (8204) B35 (12675)	Positive	No class II DSA	Unacceptable	B*35:03 is not on panel. B*35:01 MFI=12675
8109	84	96.43%	Positive	Cw4 (10349) B57 (9948) B35 (16087)	Positive	No class II DSA	Unacceptable	