

# Report of the 29<sup>th</sup> Single Antigen, Flow and Virtual Crossmatch Exchange September 20, 2023

Cells	169-170
Serum	171-174

In this current study, serum 168 (patient 2) and virtual donor V1 from Exchange 28 (June 2023) are re-examined as serum 171 and cell 169. A comparison of virtual crossmatch predictions (VXM) (V1 vs. serum 168) against the physical flow crossmatch (FXM) (cell 169 vs. serum 171) are summarized in **Part 1** of this report. **Part 2** examines the Luminex single

antigen (SAB) data for the 4 sera tested (sera 171 - 174). **Part 3** summarizes the FXM results for 2 cells (cells 169 - 170) against the 4 sera. Finally, in **Part 4**, the VXM predictions for 3 potential donors (V1 - V3) against 2 sera (serum 173 and serum 174) are evaluated.

## Part 1

### Physical Flow Cytometric Crossmatch vs. Virtual Crossmatch

Direct comparisons of VXM predictions with physical FXM outcomes are shown in Tables 1a – 1c. Seventeen labs submitted virtual crossmatch predictions in Exchange 28. Among them, 10 labs reported back physical FXM results in Exchange 29 (Table 1a). For donor V1 vs. serum 168, all 10

labs predicted the physical T/B-cell FXM to be positive in the presence of class I and class II DSA of > 5000 MFI. In this present study, all 10 labs reported the physical T/B-cell FXM for cell 169 vs. serum 171 as positive in agreement with predictions (Table 1b).

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

Exchange 028					Exchange 028				
Virtual Crossmatch - Donor V1 vs. Serum 168					Physical Flow Crossmatch - Cell 169 vs. Serum 171				
Donor	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Cell	Serum no.	#Labs	T-cell Results	B-cell Results
V1	168	10	POS (10)	POS (10)	169	171	10	POS (10)	POS (10)

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

		T-cell Virtual XM (Exchange 28)					B-cell Virtual XM (Exchange 28)		
		+	-	∅			+	-	∅
Physical T-cell FXM (Exchange 29)	+	10			Physical B-cell FXM (Exchange 29)	+	10		
	-					-			
	∅					∅			

+/- = positive/negative      ∅ = borderline/not typed

n = number of labs

The reporting of DSA and DSA strength was also consistent across the 2 studies (Table 1c). In Exchange 28, anti-A68 (5330), -DQ6 (23726), -DQ7 (19720), and -DR13 (5924) reactivity was reported against donor V1. In

Exchange 29, DSA (A68, DQ6, DQ7, DR13) of similar strength were reported once again against the donor (cell 169). Respective MFI values for each were 6310, 23770, 21431, and 5528.

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

Cell #169 HLA genotype: A\*66:01-A\*68:02-B\*14:02, B\*53:01-C\*06:02:01G-C\*08:02-DRB1\*13:02-DRB1\*13:03-DRB3\*01:01-DRB3\*03:01-DQA1\*01:02:01G-DQA1\*05:01:01G-DQB1\*03:01:01G-DQB1\*06:04:01G-DPA1\*01:03-DPA1\*02:01-DPB1\*04:01-DPB1\*17:01:01G

Exchange 028					Exchange 029				
Virtual Crossmatch - Donor V1 vs. Serum 168 (Patient 2)					Physical Flow Crossmatch - Cell 169 vs. Serum 171				
Ctr	Virtual T-cell Prediction	Class I DSA(MFI)	Virtual B-cell Prediction	Class II DSA(MFI)	Ctr	T-Cell RESULT	Class I DSA(MFI)	B-Cell RESULT	Class II DSA(MFI)
230	Positive	A68(8867)	Positive	DR13(8400) DQ7(23140) DQ6(27169)	230	Positive	A66,A68	Positive	DR13,DQ6,DQ7
792	Positive	A68(4810)	Positive	DR13(5096) DQ7(18630) DQ6(17959)	792	Positive	A68(4196)	Positive	DQ6(20023), DQ7(19714), DR13(5109)
1426	Positive	A68(3827)	Positive	DR13(4243) DQ7(18226) DQ6(20144)	1426	Positive	A*68:02(3690)	Positive	DQB1*06:04 (19231), DQB1*03:01 (16947), DRB1*13:03 (4669)
2400	Positive	A68(4532)	Positive	DR13(4334) DQ7(15226) DQ6(19567)	2400	Positive	A*68(5269)	Positive	DRB1*13:01(3995), DRB1*13:03(4591), DQ7(16469), DQ6(19879)
3224	Positive	A68(8098)	Positive	DQ6(24027) DQA1*01(24027)	3224	Positive		Positive	
3753	Positive	A68(6882)	Positive	DR13(5924) DQ7(20683) DQ6(26398)	3753	Positive	A66(2461), A68(4953)	Positive	DR13(5528), DQ6(27747), DQ7(22102)
8001	Positive	A68(7575)	Positive	DR13(6820) DQ7(24799) DQ6(24504)	8001	Positive	A*68:02(6172)	Positive	DRB1*13:03(6528), DQB1*03:01(25408), DQB1*06:04(23018), DQA1*01:02(26582)
8050	Positive	A68(5033)	Positive	DR13(6297) DQ7(21011) DQ6(27586)	8050	Positive	A68(7865)	Positive	DR13(7566) DQ6(27178) DQ7(21748)
8083	Positive	A66(5045) A68(7463)	Positive	DR13(7962) DQ7(28224) DQ6(25064)	8083	Positive	A*68:02=6533	Positive	DR13=8754; DQ06:04=24547; DQ7=25282
8111	Positive	A68(5400)	Positive	DR13(5800) DQ7(19000) DQ6(21200)	8111	Positive	A68,A*66:02	Positive	DR13,DQ6,DQ7

## Part 2

Class I and class II Luminex single antigen results for serum samples 171 - 174 are summarized in Tables 12 - 15. Individual listing of results for

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

### Antibody Identification

**Serum 171:** This sample was previously examined as serum 168 in Exchange 28. As shown below, the reporting of antibodies and antibody strength was consistent across the 2 studies.

Exchange 28 Class I		Exchange 29 Class I		Exchange 28 Class II		Exchange 29 Class II	
*** Serum 168 ***		*** Serum 171 ***		*** Serum 168 ***		*** Serum 171 ***	
A2	7816	A2	9302	DQ4	20592	DQ4	20516
A66	3105	A66	3403	DQ5	23110	DQ5	23186
A68	5330	A68	6310	DQ6	23726	DQ6	23770
A69	5736	A69	6512	DQ7	19720	DQ7	21431
B13	7826	B13	9046	DQ8	21888	DQ8	21277
B27	11751	B27	12081	DQ9	21061	DQ9	21700
B42	6233	B42	6257	DR1	5100	DR1	5228
B47	8413	B47	8165	DR10	2339	DR10	2356
B48	8557	B48	8622	DR103	5532	DR103	5803
B54	3185	B54	3332	DR11	4765	DR11	4860
B55	5099	B55	5200	DR12	4182	DR12	4326
B56	4312	B56	4269	DR13	5924	DR13	5528
B57	4262	B57	4381	DR14	3227	DR14	3382
B58	3601	B58	3577	DR15	8858	DR15	8568
B60	12126	B60	12753	DR16	7307	DR16	7053
B61	11538	B61	11885	DR4	3900	DR4	4110
B63	3082	B63	2966	DR51	9100	DR51	8978
B67	6571	B67	6748	DR8	3212	DR8	3032
B7	14488	B7	15332	DR9	3800	DR9	3872

Anti-A68 (6310), -A66 (3403), -DQ6 (23770), -DQ7 (21431), and -DR13 (5528) reactivity was reported against cell 169 in this sample. Against cell 170, anti-A2 (9302), -DQ6 (23770), -DR15 (8568) and -DR51 (8978) reactivity was reported. Several labs also reported DR7 (1116) as a DSA.

\*(median MFI by SAB)

#### Genotypes of cells provided by UCLA

**Cell 169 (Black/Japanese):** A\*66:01-A\*68:02-B\*14:02, B\*53:01-C\*06:02:01G-C\*08:02-DRB1\*13:02-DRB1\*13:03-DRB3\*01:01-DRB3\*03:01-DQA1\*01:02:01G-DQA1\*05:01:01G-DQB1\*03:01:01G-DQB1\*06:04:01G-DPA1\*01:03-DPA1\*02:01-DPB1\*04:01-DPB1\*17:01:01G

**Serum 172:** For this sample, anti-B44 (6868) reactivity, along with reactivity to a number of 5C specificities, including B35 (10731), B53 (10718), B57 (8974), and B58 (7642) was reported by 100% of labs. For class II, > 90% of labs reported reactivity to DR8 (5751), DR13 (2390), DR12 (2329), DR14 (1896), and DR11 (1821).

Multiple DSA (B53, DR13, DR52) were reported against cell 169, with respective MFI of 10718, 2390, and 1307. A number of labs (n = 4) also assigned Cw6 (1386) as a DSA. Against cell 170, anti-A2 (1645) and -B18 (3936) reactivity was reported. The reporting of class II DSA was mixed among labs, with 4 labs reporting DR7 (791) as a DSA against cell 170 and the remaining labs indicating no class II DSA were present.

**Serum 173:** Strong class I reactivity was reported for this sample. More than 90% of labs reported reactivity to a number of 5C, 7C, and 12C specificities, including B45 (23088), B13 (14542), B82 (15797), B41 (14636), B50 (14810), and B72 (10353). For class II, > 90% of labs reported reactivity to DR4 (5622), DQ7 (3649), DQ8 (3603), and DQ9 (3631).

Against cell 169, anti-B53 (9556) and -DQ7 (3649) reactivity was reported. Against cell 170, labs reported anti-B72 (10353), -B18 (4184), -DR51 (1883), and -DR53 (2156) reactivity.

**Serum 174:** This sample was not graded for class I as consensus was < 90%. Ten labs reported weak anti-A11 (1553) reactivity, while 2 labs reported it as negative for class I. By contrast, strong class II reactivity was reported, with 100% of labs reporting anti-DR15 (12724), -DR16 (10904), and DR51 (9722) reactivity.

The reporting of DSA against cell 169, was mixed among labs. Several labs noted neither class I or class II DSA were present. Four labs reported A\*66:01 (1000) as a DSA and 3 labs reported DP17 (1134) as a DSA. Against cell 170, by contrast, strong class II DSA (DR15, DR51) were reported, with respective MFI = 12724 and 9722.

**Cell 170 (Black):** Cell #170 HLA genotype: A\*02:01-A\*30:01-B\*15:03-B\*18:01-C\*02:10-C\*16:01-DRB1\*07:01-DRB1\*15:03-DRB4\*01:01-DRB5\*01:01-DQA1\*01:02-DQA1\*02:01-DQB1\*02:02-DQB1\*06:02-DPA1\*01:03-DPA1\*01:03:01G-DPB1\*04:01-DPB1\*18:01

## Conclusion:

Good agreement (> 90%) was achieved in the reporting of class I and II antibodies for 3 out of 4 sera. For the remaining sample, serum 174, the presence of weak antibodies (MFI < 2000), resulted in the class I consensus to fall below 90%.

A total of 15 labs submitted single antigen data for samples 171 - 174. Among them, 14 labs shared the kit type used for testing (Figure 1). Twelve labs (86%) used One Lambda's LABScreen Single Antigen kit, with

1 lab specifying the LABScreen ExPlex kit. The remaining 2 labs (14%), used kits from Immucor.

For serum pretreatment, 78% of labs treated the sera prior to testing (Figure 2). EDTA was used by the majority of labs (n = 5). Two labs used EDTA in combination with FBS to treat the sera. Two labs used DTT, 1 lab used DDTBA, and another used DTE.

Figure 1. Kit Information breakdown

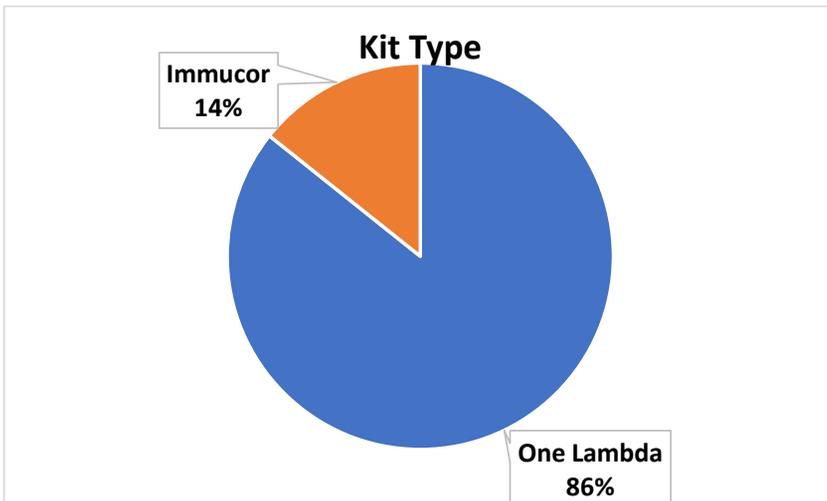
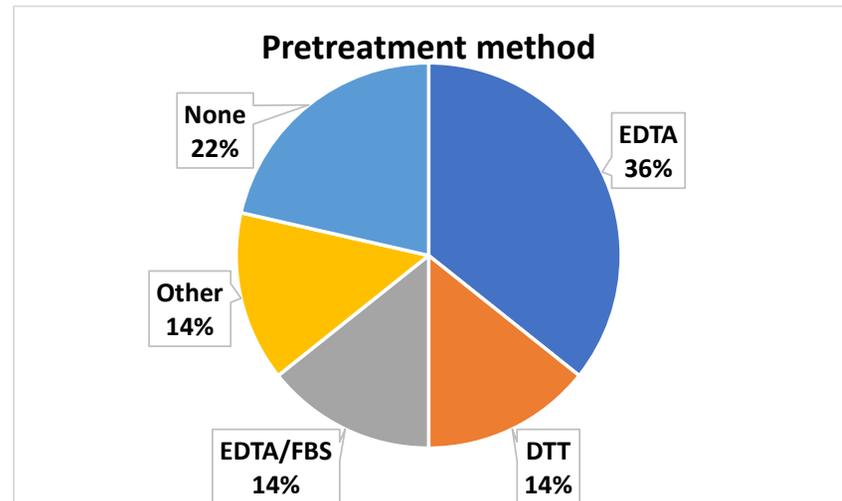


Figure 2. Sera pretreatment breakdown



Other = DTBA , DTE

## Part 3

Flow cytometric crossmatch results for cell 169 and cell 170 against serum samples 171 - 174 are summarized in Table 2. Individual results for

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

### Flow Cytometric Crossmatch

**Cell 169.** For this cell, > 80% agreement was achieved for 6 out of 8 T/B-cell FXM. Class I and or class II DSA of > 6000 MFI were present in each case. For cell 169 against serum 174, however, < 80% agreement was achieved for both the T- and B-cell FXM. In each case, labs either reported the absence of DSA or the presence of DSA of < 1200 MFI.

**Cell 170.** For this cell, > 80% agreement was achieved for 7 out of 8 T/B-cell FXM. In the case of the FXM with no discrepancies, class I DSA of > 9000 MFI were present. For cell 170 against serum 174, no class I DSA were reported. Interestingly, however, 2 labs reported the T-cell FXM as positive and 1 lab reported it as borderline.

**Table 2. Summary of Flow crossmatch results for Cell #169- #170 vs. Serum #171 - #174**

Cell no.	Serum no.	#Labs	T-cell Results	B-cell Results	Cell no.	Serum no.	#Labs	T-cell Results	B-cell Results
169	171	14	POS(13) NT(1)	POS(13) NT(1)	170	171	14	POS(14)	POS(14)
169	172	14	POS(13) NT(1)	POS(12) Borderline(1) NT(1)	170	172	14	POS(12) NEG(1) Borderline(1)	POS(12) NEG(1) Borderline(1)
169	173	14	POS(13) NT(1)	POS(13) NT(1)	170	173	14	POS(14)	POS(14)
169	174	13	POS(3) NEG(8) Borderline(1) NT(1)	POS(4) NEG(6) Borderline(1) NT(2)	170	174	14	POS(2) NEG(11) Borderline(1)	POS(14)

### Conclusion:

For 10 out of 16 T/B-cell FXM, no discrepancies were observed in the reporting of FXM outcomes in the presence of class I and/or class II DSA of > 6000 MFI. However, when the strength of the DSA fell below 4000 MFI, discrepancies increased among labs. In the case of cell 170 vs. serum 172, for example, the strength of the DSA present was < 4000 MFI, resulting in 1 lab to report the T/B-cell FXM to be borderline and 1 to report it as negative.

For serum 174 against cell 169, the majority of labs reported the T/B-cell FXM as negative and indicated there were neither class I or class II

DSA present. Interestingly, a positive T-cell FXM was reported by 3 labs, each of which assigned A\*66:01 (862) as a DSA. A positive B-cell FXM was reported by 4 labs, with 3 labs assigning DP17 (855) as a DSA. One lab reporting borderline results noted the T/B-cell FXM was likely negative and the reactivity may be due to non-HLA antibodies. This may also be the case for the T-cell FXM for serum 174 against cell 170. All but 1 lab indicated there were no class I DSA present. However, 2 labs reported a positive T-FXM and 1 lab reported it as borderline.

## Part 4

Virtual crossmatch predictions for donor V1 - V3 against serum samples 173 and 174 are summarized in Table 3 and individual laboratory pre-

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

### Virtual Crossmatch Paper Challenge

For virtual **T-cell predictions** of the expected T-cell FXM, > 80% agreement was achieved for 5 out of 6 challenges. In the case of the positive predictions, class I or class II DSA of > 7500 MFI were present. For the remaining challenge, serum 174 vs. donor V2, agreement fell below 80%. Thirteen labs predict the physical T-cell FXM to be negative in the absence of class I DSA, while 4 predict it to be positive in the presence to anti-A1

(1100) reactivity.

For virtual **B-cell predictions** of the expected B-cell FXM, > 80% agreement was achieved for all 6 challenges. Among the labs predicting the expected physical B-cell FXM to be positive, class I or II DSA of > 7500 MFI were reported.

**Table 3. Summary of Virtual Crossmatch Predictions (Serum #173 - #174 vs. Donors V1 - V3)**

Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Predicted Risk Assessment	Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Predicted Risk Assessment
V1	173	17	POS(17)	POS(17)	Unacceptable(16) Borderline(1)	V2	173	17	POS(17)	POS(17)	Unacceptable(16) Borderline(1)
V1	174	17	POS(3) NEG(14)	POS(17)	Unacceptable(17)	V2	174	17	POS(4) NEG(13)	POS(16) NEG(1)	Acceptable(1) Unacceptable(16)
Donor no.	Serum no.	#Labs	T-cell Prediction	B-cell Prediction	Predicted Risk Assessment						
V3	173	17	POS(17)	POS(17)	Unacceptable(16) Borderline(1)						
V3	174	17	POS(1) NEG(16)	POS(1) NEG(16)	Acceptable(16) Borderline(1)						

consensus < 80%

# DSA Identification

## Patient 1 (Serum 173)

**Patient's fictional case history:** This individual is a 32-year-old female being evaluated for her first transplant. Patient has had 1 prior pregnancy. The HLA type of the child is A\*02:01-A\*23:01-B\*07:02-B\*27:05-C\*01:02-DRB1\*01:02-DRB1\*14:02-DRB3\*01:01-DQA1\*01:01-DQA1\*02:01-DQB1\*05:01-DQB1\*02:01-DPA1\*01:03-DPA1\*02:01-DPB1\*01:01-DPB1\*18:01.

Anti-B51 (7769), -DR4 (5622), and -DQ8 (3649) reactivity was reported against donor **V1**. Two labs noted DRB1\*04:07 which donor V1 carries, is not represented on the single antigen bead panel. Labs were in complete agreement with respect to virtual predictions, as all 17 labs predict the expected physical T/B-cell FXM to be positive. Among the 17 labs, 16 labs assess the predicted risk of transplant to be unacceptable. One lab reporting DSA of < 1200 MFI predicts the risk as borderline.

Against **donor V2**, multiple class I DSA were reported (A1, B13, B52), with respective MFI = 8464, 14542, 5392. The reporting of class II DSA was somewhat mixed as the DSA present was < 2200 MFI. The majority of labs reported anti-DR51 (1883) and -DR53 (2156) reactivity against the donor,

while a few (n = 4) labs reported only a single DSA was present. One lab indicated there were no class II DSA present. All 17 labs predict the physical T-cell FXM as well as the physical B-cell FXM to be positive, likely due to the class I DSA present. For predicted transplant risk, 16 labs predict the risk as unacceptable and 1 predicts it as borderline.

Anti-B53 (9556) reactivity was reported against **donor V3** by all 17 labs. Anti-DQ7 (3649) reactivity was also reported against the donor by 14 labs. For virtual predictions, all 17 labs predict the physical T/B-cell FXM to be positive. Sixteen labs assess the predicted risk of transplant to be unacceptable and 1 lab reporting DSA with MFI below 2000, assesses the risk as borderline.

### Virtual Donors – HLA genotype

**Donor 1 (V1):** A\*02:01:01-A\*26:01:01-B\*51:02:01-B\*55:01:01-C\*03:03:01-C\*08:01:01-DRB1\*04:07:01-DRB1\*16:01:01-DRB4\*01:03:01-DRB5\*02:02:01-DQA1\*01:02:02-DQA1\*03:01:01-DQB1\*03:02:01G-DQB1\*05:02:01G-DPA1\*01:03:01-DPA1\*02:01:01-DPB1\*04:02:01G-DPB1\*14:01:01G

**Donor 2 (V2):** A\*01:01:01-A\*02:01:01-B\*13:02:01-B\*52:01:01-C\*06:02:01-C\*12:02:02-DRB1\*07:01:01-DRB1\*15:02:01G-DRB4\*01:03:01-DRB5\*01:02:01-DQA1\*01:03:01-DQA1\*02:01:01-DQB1\*02:01:01G-DQB1\*06:01-DPA1\*01:03:01-DPA1\*02:01:01-DPB1\*04:01:01G-DPB1\*17:01:01

**Donor 3 (V3):** A\*02:05-A\*68:01-B\*27:03-B\*53:01-C\*02:02-C\*04:01-DRB1\*03:01-DRB1\*08:04-DRB3\*02:02-DQA1\*04:01-DQA1\*05:01-DQB1\*02:01-DQB1\*03:19-DPA1\*01:03-DPA1\*02:01-DPB1\*17:01

## Patient 2 (Serum 174)

**Patient's fictional case history:** *This individual is a 45-year-old female being evaluated for her first transplant.*

Anti-DR16 (10904) and -DR51 (9722) reactivity was reported against **donor V1**. Fifteen labs noted there were no class I DSA present. In the absence of class I DSA, 14 labs predict the expected physical T-cell FXM to be negative. Interestingly, 3 labs predict the T-cell FXM to be positive. Among the 3 labs, 2 labs reported A26 (662) as a DSA. For renal transplant risk, all 17 labs assess the predicted risk as unacceptable due to the class II DSA present.

Against **donor V2**, anti-DR15 (12724) and -DR51 (9722) reactivity was reported. Several labs also reported DQ6 (1195) and DP17 (1134) as DSA. The reporting of class I DSA was mixed among labs, with 12 labs noting there were no class I DSA present and 5 labs reporting A1 (1100) as a DSA. As a result, labs were split in predicting the expected physical T-cell FXM. Thirteen labs predict the physical T-cell FXM to be negative and 4

predict it to be positive. By contrast, 16 out of 17 labs predict the expected physical B-cell FXM to be positive. The 1 lab predicting a negative B-cell FXM, noted there were no class II DSA present. In line with B-cell FXM predictions, 16 labs assess the predicted risk as unacceptable.

All 17 labs indicated there were no class I DSA present against **donor V3**. The reporting of class II DSA, however, was mixed among labs. Three labs reported weak anti-DP17 (1134) reactivity against the donor, while 14 labs noted there were no class II DSA present. All but 1 lab, predict the expected T/B-cell FXM to be negative. For renal transplant risk, 16 labs assess the predicted risk as acceptable in line with FXM predictions. One lab reporting the presence of weak class II DSA (DP3, DP11, DP17) predicts the risk as borderline.

## Conclusion

For **serum 173** against all 3 donors, > 80% agreement was achieved for all 6 virtual T/B-cell predictions. In the case of the positive predictions, strong (MFI > 7500) class I DSA were present. As such, there were no discrepancies observed across all 3 virtual XM challenges.

For **serum 174**, however, discrepancies in the reporting of predictions were observed, in particular, for the T-cell predictions. In the presence of weak (MFI < 2000) class I reactivity, T-cell predictions were mixed among

labs. For serum 174 against donor V1, all but 2 labs indicated there were no class I DSA present. While 14 labs predict a negative T-cell FXM, 3 labs predict it to be positive. Interestingly of the 3 labs predicting a positive T-cell FXM, 2 did not report class I DSA against the donor. For serum 174 vs. donor V2, a number of labs (n = 5) reported anti-A1 (1100) reactivity against the donor. Among those 5 labs, 3 labs predict the physical T-cell FXM to be positive while the remaining 2 labs predict it to be negative.

***NEXT MAILING DATE: April 17, 2024***

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# Flow Cytometric Crossmatch

Cell #169 HLA genotype: A\*66:01-A\*68:02-B\*14:02, B\*53:01-C\*06:02:01G-C\*08:02-DRB1\*13:02-DRB1\*13:03-DRB3\*01:01-DRB3\*03:01-DQA1\*01:02:01G-DQA1\*05:01:01G-DQB1\*03:01:01G-DQB1\*06:04:01G-DPA1\*01:03-DPA1\*02:01-DPB1\*04:01-DPB1\*17:01:01G

**Table 4. Individual Flow crossmatch results and DSA reported for Cell #169 vs. Serum #171**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	171	1.3	1.4			POSITIVE	A66,A68	1.6	16.4			POSITIVE	DR13,DQ6,DQ7	0.641	0.531	YES
615	171	409	29			Weak Positive	A*68:02(8105)	285	393			POSITIVE	DRB1*13:03(5414), DQA1*05:03, DQB1*03:01(18464), DQA1*01:02, DQB1*06:04(18217)	321	212	YES
792	171	57	123			POSITIVE	A68(4196)	107	393			POSITIVE	DQ6(20023), DQ7(19714), DR13(5109)	267	258	YES
1426	171	63	174.5			POSITIVE	A*68:02(3690)	83	430			POSITIVE	DQB1*06:04 (19231), DQB1*03:01 (16947), DRB1*13:03 (4669)	251.5	251	YES
2400	171		66			POSITIVE	A*68(5269)		318			POSITIVE	DRB1*13:01(3995), DRB1*13:03(4591), DQ7(16469), DQ6(19879)			YES
3224	171	70	65			POSITIVE	-	140	330			POSITIVE	-	239	204	YES
3753	171	50	143			POSITIVE	A66(2461), A68(4953)	100	274			POSITIVE	DR13(5528), DQ6(27747), DQ7(22102)	250	387	NO
3808	171					NT	-					NT	-			
3966	171	20	121			POSITIVE	-	50	338			POSITIVE	-	189	364	NO
5214	171	19	56		8075	POSITIVE	A68:02(7270)	28	118		101962	POSITIVE	DQ6(22580), DQ7(10603-23302), DR13(7329-7872)	261	265	YES
8001	171	50	198			POSITIVE	A*68:02(6172)	100	384			POSITIVE	DRB1*13:03(6528), DQB1*03:01(25408), DQB1*06:04(23018), DQA1*01:02(26582)	232	268	YES
8050	171	50	145			POSITIVE	A68(7865)	120	316			POSITIVE	DR13(7566) DQ6(27178) DQ7(21748)	76	192	YES
8083	171	74	333			POSITIVE	A*68:02=6533	108	482			POSITIVE	DR13=8754; DQ06:04=24547; DQ7=25282	522	450	YES
8111	171	76	352			POSITIVE	A68,A*66:02	114	4699			POSITIVE	DR13,DQ6,DQ7	269	230	YES

**Table 5. Individual Flow crossmatch results and DSA reported for Cell #169 vs. Serum #172**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	172	1.3	1.3			POSITIVE	B53	1.6	1.6			POSITIVE	B53	0.641	0.531	YES
615	172	409	101			Moderate Positive	B*53:01(9318)	285	250			Strong Positive	DRB1*13:03(2549), DRB3*01:01(730), DRB3*03:01(1224)	321	212	YES
792	172	57	199			POSITIVE	B53(10718)	107	225			POSITIVE	DR13(2286)	267	258	YES
1426	172	63	234.5			POSITIVE	B*53:01(11173), C*06:02(1170)	83	290			POSITIVE	DRB1*13:03(2027), DRB3*03:01(1384)	251.5	251	YES
2400	172		115			POSITIVE	B*53(11441)		176			POSITIVE	DRB1*13:01(2168), DRB1*13:03(2486), DRB3*03(1470)			YES
3224	172	70	166			POSITIVE	-	140	156			POSITIVE	-	239	204	YES
3753	172	50	192			POSITIVE	B53(12430)	100	183			POSITIVE	DR13(2295), DR52(1327)	250	387	NO
3808	172					NT	-					NT	-			
3966	172	20	178			POSITIVE	-	50	228			POSITIVE	-	189	364	NO
5214	172	19	76		18250	POSITIVE	B53:01(9798)	28	89		34657	POSITIVE	DR13 (1770-2247), DR52(DRB3*03:01, 1040)	261	265	YES
8001	172	50	267			POSITIVE	B*53:01(11964), C*06:02(596)	100	306			POSITIVE	DRB1*13:03(2543), DRB3*01:01(792), DRB3*03:01(1252)	232	268	YES
8050	172	50	203			POSITIVE	B53(14735) Cw6(1386)	120	196			POSITIVE	DR13(2808) DR52(1734)	76	192	YES
8083	172	74	157			POSITIVE	B*53:01=13002	108	100			Borderline	DR*13:03=6560; DR13=5931	522	450	YES
8111	172	76	760			POSITIVE	B53,Cw6	114	1542			POSITIVE	DR13,DR52	269	230	YES

**Table 6. Individual Flow crossmatch results and DSA reported for Cell #169 vs. Serum #173**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	173	1.3	3.5			POSITIVE	B53	1.6	7.1			POSITIVE	B53	0.641	0.531	YES
615	173	409	28			Weak Positive	B*53:01 (12085)	285	187			POSITIVE	DQA1*05:03, DQB1*03:01 (4567)	321	212	YES
792	173	57	150			POSITIVE	B53(8481)	107	183			POSITIVE	DQ7(2795)	267	258	YES
1426	173	63	157.5			POSITIVE	B*53:01 (8627)	83	220			POSITIVE	DQB1*03:01 (2415)	251.5	251	YES
2400	173		73			POSITIVE	B*53(8907)		118			POSITIVE	DQ7(2569)			YES
3224	173	70	108			POSITIVE		140	109			POSITIVE		239	204	YES
3753	173	50	141			POSITIVE	B53(9339)	100	150			POSITIVE	DQ7(2060)	250	387	NO
3808	173					NT	-					NT	-			
3966	173	20	134			POSITIVE	-	50	194			POSITIVE	-	189	364	NO
5214	173	19	51		6487	POSITIVE	B53:01 (12650)	28	65		13472	POSITIVE	DQ7 (1932-4786)	261	265	YES
8001	173	50	184			POSITIVE	B*53:01 (11161)	100	252			POSITIVE	DQB1*03:01 (3832)	232	268	YES
8050	173	50	152			POSITIVE	B53(10225)	120	155			POSITIVE	DQ7(3473)	76	192	YES
8083	173	74	346			POSITIVE	B*53:01=12373	108	261			POSITIVE	DQ7=6843	522	450	YES
8111	173	76	341			POSITIVE	B53	114	1210			POSITIVE	DQ7	269	230	YES

**Table 7. Individual Flow crossmatch results and DSA reported for Cell #169 vs. Serum #174**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
615	174	409	-37			NEGATIVE	No Class I DSA	285	85			NT	DPB1*17:01 (811)	321	212	YES
792	174	57	49			NEGATIVE	No Class I DSA	107	61			NEGATIVE	No ClassII DSA	267	258	YES
1426	174	63	88.5			Borderline	No DSA present. Likely negative crossmatch. Reactivity may be due to non-HLA Antibodies.	83	106			Borderline	No DSA Present. Likely negative crossmatch. Reactivity may be due to non-HLA antibodies.	251.5	251	YES
2400	174		15			NEGATIVE	-		54			POSITIVE	-			YES
3224	174	70				NEGATIVE	-	140				NEGATIVE	-	239	204	YES
3753	174	50	31			NEGATIVE	No Class I DSA	100	38			NEGATIVE	No Class II DSA	250	387	NO
3808	174					NT	-					NT	-			
3966	174	20	16			NEGATIVE	-	50	36			NEGATIVE	-	189	364	NO
5214	174	19	32		2660	POSITIVE	A66:01 (896)	28	44		5610	POSITIVE	-	261	265	YES
8001	174	50	92			POSITIVE	A*66:01 (611)	100	115			POSITIVE	DPB1*17:01 (618)	232	268	YES
8050	174	50	56			NEGATIVE	A*66:01(1113)	120	48			NEGATIVE	DP17(1137)	76	192	YES
8083	174	74	20			NEGATIVE	-	108	16			NEGATIVE	-	522	450	YES
8111	174	76	106			POSITIVE	A*66:01	114	225			POSITIVE	DQ6	269	230	YES

Cell #170 HLA genotype: A\*02:01-A\*30:01-B\*15:03-B\*18:01-C\*02:10-C\*16:01-DRB1\*07:01-DRB1\*15:03-DRB4\*01:01-DRB5\*01:01-DQA1\*01:02-DQA1\*02:01-DQB1\*02:02-DQB1\*06:02-DPA1\*01:03-DPA1\*01:03:01G-DPB1\*04:01-DPB1\*18:01

**Table 8. Individual Flow crossmatch results and DSA reported for Cell #170 vs. Serum #171**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	171	1.3	2.5			POSITIVE	A2	2.5	29.9			POSITIVE	DR15,DR51, DQ6	0.653	0.848	YES
615	171	372	122			POSITIVE	A*02:01(12171)	322	374			POSITIVE	DRB1*07:01(1147), DRB1*15:03(8518), DRB5*01:01(9037), DQA1*01:02, DQB1*06:02(19920)	284	249	YES
792	171	57	210			POSITIVE	A2(7462)	107	401			POSITIVE	DQ6(21928), DR51(8463), DR15(7830)	244	300	YES
1426	171	63	207			POSITIVE	A*02:01(5655)	83	435			POSITIVE	DQB1*06:02(20646), DRB1*15:03(7177), DRB5*01:01(7708)	261	284	YES
2400	171		114			POSITIVE	A*02(8910)		350			POSITIVE	DRB1*15(7272), DRB5*01(8613), DQ6(20,550)			YES
3224	171	70	128			POSITIVE	-	140	342			POSITIVE	-	192	181	YES
3753	171	50	159			POSITIVE	A2(7708)	100	328			POSITIVE	DR15(8502), DR51(8761), DQ6(27747)	271	358	NO
3808	171	351	230			POSITIVE	A*02:01(1988)	446	318			Strong Positive	DRB1*15:03(2981), DQA1*01:02(14281), DQB1*06:02(14281), DRB5*01:01(3766)	282	334	YES
3966	171	20	223			POSITIVE	-	50	300			POSITIVE	-	169	342	NO
5214	171	19	69		12667	POSITIVE	A2:01(11551)	28	123		139187	POSITIVE	DQ6(23278), DR7(1188), DR15:03(11427), DR51 (DRB5*01:01, 12004)	259	268	YES
8001	171	50	273			POSITIVE	A*02:01(10473)	100	392			POSITIVE	DRB*07:01(1084), DRB1*15:03(9401), DRB5*01:01(9704), DQB1*06:02(24683), DQA1*01:02(26582)	213	285	YES

**Table 8. Individual Flow crossmatch results and DSA reported for Cell #170 vs. Serum #171, cont.**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
8050	171	50	163			POSITIVE	A2(11013)	120	297			POSITIVE	DR15(11024) DR7(1046) DR51(11481) DQ6(27178)	70	182	NO
8083	171	74	134			POSITIVE	A*02:01=11417	108	332			POSITIVE	DR*15:03=12941; DR51=13049; DQ*06:02=25843	454	467	YES
8111	171	76	738			POSITIVE	A2,A*30:01	114	7261			POSITIVE	DR15,DR7,DR51	269	230	YES

**Table 9. Individual Flow crossmatch results and DSA reported for Cell #170 vs. Serum #172**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	172	1.3	1.25			Borderline	B18	2.5	2.4			Borderline	No Class II DSA	0.653	0.848	YES
615	172	372	45			POSITIVE	A*02:01(1157), B*18:01(3566)	322	188			POSITIVE	DRB1*07:01(626)	284	249	YES
792	172	57	152			POSITIVE	B18(3836)	107	237			POSITIVE	No Class II DSA	244	300	YES
1426	172	63	101			POSITIVE	A*02:01(1611), B*18:01(5476)	83	223			POSITIVE	No Class II DSA	261	284	YES
2400	172		54			POSITIVE	A*02(1441), B*18(4836)		119			POSITIVE	No Class II DSA			YES
3224	172	70	40			POSITIVE	-	140	14			POSITIVE	-	192	181	YES
3753	172	50	86			POSITIVE	A2(1681), B18(3817)	100	143			POSITIVE	No Class II DSA	271	358	NO
3808	172	351	86			Moderately positive	B*18:01(1280)	446	137			Moderately Positive	DRB1*07:01(791)	282	334	YES
3966	172	20	115			POSITIVE	-	50	184			POSITIVE	-	169	342	NO
5214	172	19	43		4249	POSITIVE	A2:01(1270), B18(3774)	28	64		14613	POSITIVE	No Class II DSA	259	268	YES
8001	172	50	172			POSITIVE	A*02:01(1609), B*18:01(4784)	100	214			POSITIVE	DRB1*07:01(609)	213	285	YES
8050	172	50	45			NEGATIVE	A2(1874), B18(6394)	120	73			NEGATIVE	No Class II DSA	70	182	NO
8083	172	74	103			POSITIVE	A*02:01=2515; B*18:01=6891	108	129			POSITIVE	Due to Class I antibodies	454	467	YES
8111	172	76	251			POSITIVE	A2,B18	114	1287			POSITIVE	DR7	269	230	YES

**Table 10. Individual Flow crossmatch results and DSA reported for Cell #170 vs. Serum #173**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	173	1.3	2.8			POSITIVE	B18,B27	2.5	27			POSITIVE	B18,B27,DQ6	0.653	0.848	YES
615	173	372	124			POSITIVE	B*15:03(13053), B*18:01(6188)	322	282			POSITIVE	DRB1*15:03(856), DRB4*01:01(2134), DRB5*01:01(2719)	284	249	YES
792	173	57	221			POSITIVE	B72(8246), B18(3420)	107	306			POSITIVE	DR51(1663)	244	300	YES
1426	173	63	180			POSITIVE	B*18:01(4184), B*15:03(10300)	83	322			POSITIVE	DRB5*01:01(1215), DRB4*01:01(1302)	261	284	YES
2400	173		101			POSITIVE	B*72(9273), B*18(3995)		157			POSITIVE	DRB4*01(1300), DRB5*01(1816)			YES
3224	173	70	131			POSITIVE		140	58			POSITIVE		192	181	YES
3753	173	50	131			POSITIVE	B18(2797), B72(7216)	100	145			POSITIVE	DR53(1332), DR51(1406)	271	358	NO
3808	173	351	197			POSITIVE	B*15:03(2316)	446	261			POSITIVE	DRB5*01:01(884)	282	334	YES
3966	173	20	132			POSITIVE	-	50	261			POSITIVE	-	169	342	NO
5214	173	19	53		6736	POSITIVE	B18(5916), B72(13239)	28	60		12663	POSITIVE	DR51 (DRB5*01:01, 2546), DR53 (DRB4*01:01, 1969)	259	268	YES
8001	173	50	235			POSITIVE	B*15:03(10917), B*18:01(4175)	100	262			POSITIVE	DRB1*15:03 (545), DRB5*01:01 (2021), DRB4*01:01 (1543)	213	285	YES
8050	173	50	117			POSITIVE	B18(3645) B72(10353)	120	150			POSITIVE	DR51(2203)	70	182	NO
8083	173	74	133			POSITIVE	B72=13319; B18=5801	108	305			POSITIVE	Due to Class I antibodies	454	467	YES
8111	173	76	606			POSITIVE	B72,B18	114	3459			POSITIVE	DR51,DR53	269	230	YES

**Table 11. Individual Flow crossmatch results and DSA reported for Cell #170 vs. Serum #174**

Ctr	Serum no	T-Cell Pos cutoff	T Cell MCS	RATIO	MESF	T-Cell RESULT	Class I DSA ( )	B-Cell Pos cutoff	B-cell MCS	RATIO	MESF	B-Cell RESULT	Class II DSA ( )	T-Cell NEG Control MC	B-Cell NEG Control MC	Pronase Treated
230	174	1.3	0.1			NEGATIVE	No Class I DSA	2.5	2.6			POSITIVE	DR15,DR51	0.653	0.848	YES
615	174	372	-62			NEGATIVE	No Class I DSA	322	263			POSITIVE	DRB1*15:03(12481), DRB5*01:01(11236)	284	249	YES
792	174	57	96			POSITIVE	No Class I DSA	107	279			POSITIVE	DR15(12068), DR51(11155)	244	300	YES
1426	174	63	103			Borderline	No DSA present. Likely negative crossmatch. Reactivity may be due to non-HLA antibodies.	83	252			POSITIVE	DRB1*15:03(9653), DRB5*01:01(1964)	261	284	YES
2400	174		5			NEGATIVE	No Class I DSA		229			POSITIVE	DRB1*15(12167), DRB5*01(11658)			YES
3224	174	70				NEGATIVE	-	140	150			POSITIVE	-	192	181	YES
3753	174	50	10			NEGATIVE	No Class I DSA	100	263			POSITIVE	DR15(12196), DR51(9074)	271	358	NO
3808	174	351	-62			NEGATIVE	No Class I DSA	446	155			Moderately Positive	DRB5*01:01(8498), DRB1*15:03(6085)	282	334	YES
3966	174	20	19			NEGATIVE	-	50	207			POSITIVE	-	169	342	NO
5214	174	19	23		1488	NEGATIVE	No Class I DSA	28	88		37300	POSITIVE	DR51 (DRB5*01:01, 11721), DR15:03(13053)	259	268	YES
8001	174	50	22			NEGATIVE	No Class I DSA	100	318			POSITIVE	DRB1*15:03 (12541), DRB5*01:01 (12056)	213	285	YES
8050	174	50	0			NEGATIVE	No Class I DSA	120	197			POSITIVE	DR15(16863) DR51(9722)	70	182	NO
8083	174	74	0			NEGATIVE	No Class I DSA	108	119			POSITIVE	DR*15:03=14443	454	467	YES
8111	174	76	98			POSITIVE	A1C	114	3713			POSITIVE	DR15,DR51	269	230	YES

## Single Antigen

**Table 12. Summary of Single Antigen results for Serum #171**

Class I							
*** Serum 171 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
B7	15	100%	15332	14386	4445	4505	20004
B81	15	100%	14819	13536	4729	1912	19108
B60	15	100%	12753	11824	4347	1761	16678
B61	15	100%	11885	10980	3983	1315	15819
<b>A2</b>	15	100%	9302	8438	2974	2086	12171
B13	15	100%	9046	7955	3054	865	11410
B47	15	100%	8165	7909	2763	1782	11432
B67	15	100%	6748	6544	2474	1340	10365
A69	15	100%	6512	5995	2272	1408	9024
B73	15	100%	6495	6528	2121	1808	9591
<b>A68</b>	15	100%	6310	5783	2047	1664	8817
B42	15	100%	6257	6194	2400	1219	9746
B55	15	100%	5200	5145	1958	1057	8046
B57	15	100%	4381	4359	1575	850	6643
B63	15	100%	2966	3013	1186	809	4934
B27	14	93%	12081	11666	3397	4424	16108
B48	14	93%	8622	8217	2562	776	11210
B54	14	93%	3332	3402	1073	829	5072
B56	14	93%	4269	4325	1384	946	6482
B58	14	93%	3577	3773	1155	850	5473
B82	14	93%	2860	2889	908	884	4329
<b>A66</b>	10	66%	3403	3344	1218	1203	5332
A24	8	53%	1856	1746	619	722	2775
A32	8	53%	2211	2176	412	1422	2884
A6602	7	46%	3924	3722	1184	1203	5332
A25	5	33%	1699	1739	372	1218	2384
A30	3	20%	1906	2107	379	1778	2638
B2708	3	20%	5589	8300	4682	4424	14887
A203	2	13%	2303	2303	386	1917	2689
A23	2	13%	1190	1189	290	900	1479
B2705	2	13%	8641	8641	5138	3503	13779
B703	2	13%	2800	2800	425	2375	3225
A2403	1	6%	770	770	-	770	770
B45	1	6%	1133	1133	-	1133	1133
B8101	1	6%	4102	4102	-	4102	4102
Bw4	1	6%	4833	4833	-	4833	4833

Class II							
*** Serum 171 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DQ4	15	100%	20516	20245	3084	12107	24651
DQ5	15	100%	23186	22609	4077	11826	27231
<b>DQ6</b>	15	100%	23770	23692	3637	14281	28240
<b>DQ7</b>	15	100%	21431	20360	4076	8848	25408
DQ8	15	100%	21277	21325	2651	14929	24998
DQ9	15	100%	21700	21205	2845	14465	25773
DR1	15	100%	5228	5454	1612	1779	8317
DR103	15	100%	5803	6029	1725	2137	9043
DR11	15	100%	4860	5284	1546	2486	9103
DR12	15	100%	4326	4612	1472	1655	7865
<b>DR13</b>	15	100%	5528	6041	1759	2066	9190
DR14	15	100%	3382	3523	1336	966	6659
<b>DR15</b>	15	100%	8568	9028	2295	3659	12941
DR16	15	100%	7053	7452	2012	2681	11039
DR4	15	100%	4110	4429	1325	1950	7616
DR8	15	100%	3032	3365	1155	967	6083
<b>DR51</b>	14	93%	8978	9268	2382	3870	13049
DR9	14	93%	3872	3895	1232	1121	6711
DR10	12	80%	2356	2449	519	1853	3700
DPw5	7	46%	1812	1961	517	1218	2700
<b>DR7</b>	6	40%	1116	1300	327	1011	1800
DR1403	3	20%	2398	2137	869	966	3047
DQA1*01	2	13%	18456	18455	4175	14281	22630
DR53	2	13%	615	614	10	605	624
DQA1*03	1	6%	14402	14402	-	14402	14402
DQA1*04	1	6%	11689	11689	-	11689	11689
DQA1*06	1	6%	10772	10772	-	10772	10772
DR1404	1	6%	1771	1771	-	1771	1771

**Blue** = DSA against cell #169 only  
**Gold** = DSA against cell #170 only  
**Green** = DSA against cell #169 and #170

**Table 13. Summary of Single Antigen results for Serum #172**

Class I							
*** Serum 172 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
B35	15	100%	10731	10757	3070	4497	15708
<b>B53</b>	15	100%	10718	10678	2418	6416	14735
B57	15	100%	8974	9163	1973	5721	12133
B51	15	100%	8225	7547	2537	2170	12011
B58	15	100%	7642	7512	1971	3901	11100
B78	15	100%	7463	7120	2131	3441	10904
B44	15	100%	6868	6910	1461	4206	9923
B77	15	100%	5772	5517	1488	2499	7900
<b>B18</b>	15	100%	3836	4205	1576	1127	6891
B37	13	86%	2225	2303	858	819	3697
B52	13	86%	1601	1821	728	514	2758
B75	12	80%	3711	3154	1257	658	5168
<b>A2</b>	10	66%	1645	1628	501	775	2515
B13	10	66%	3925	3876	882	2031	5703
Cw18	3	20%	1855	1868	184	1651	2100
<b>Cw6</b>	3	20%	1386	1418	218	1170	1700
B71	2	13%	1123	1122	4	1119	1126
A203	1	6%	672	672	-	672	672
A24	1	6%	505	505	-	505	505
A2403	1	6%	531	531	-	531	531
B62	1	6%	4050	4050	-	4050	4050
B7801	1	6%	3441	3441	-	3441	3441
Bw4	1	6%	6523	6523	-	6523	6523
Bw6	1	6%	4574	4574	-	4574	4574

Class II							
*** Serum 172 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DR8	15	100%	5751	6279	2291	2666	12871
<b>DR13</b>	15	100%	2390	2762	1137	1679	6560
DR12	15	100%	2329	2647	1214	1480	6794
DR14	14	93%	1896	2326	1014	1412	5070
DR11	12	80%	1821	2129	912	1209	4321
DR17	12	80%	1411	1613	673	907	3232
DR18	12	80%	1639	1972	877	1093	4490
<b>DR52</b>	12	80%	1307	1715	720	1054	3675
DR9	10	66%	1390	1633	760	840	3747
<b>DR7</b>	5	33%	791	947	310	626	1424
DR1403	2	13%	1931	1931	543	1388	2474
DR1404	2	13%	3343	3343	788	2555	4131
DPw4	1	6%	587	587	-	587	587
DPw5	1	6%	812	812	-	812	812
DQ2	1	6%	2625	2625	-	2625	2625
DQ8	1	6%	789	789	-	789	789
DQ9	1	6%	545	545	-	545	545

**Blue** = DSA against cell #169 only  
**Gold** = DSA against cell #170 only  
**Green** = DSA against cell #169 and #170

**Table 14. Summary of Single Antigen results for Serum #173**

Class I							
*** Serum 173 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
B45	15	100%	23088	22005	5111	8382	27009
B82	15	100%	15797	15493	2825	8062	19115
B50	15	100%	14810	13314	3879	3482	17466
B41	15	100%	14636	13509	4438	2208	18000
B60	15	100%	14175	12830	4447	1519	17267
B61	15	100%	12691	12110	4078	1231	16423
B62	15	100%	10391	9728	3445	1478	13400
<b>B72</b>	15	100%	10353	9751	3541	1034	13319
B77	15	100%	9241	9183	3129	1481	12674
B35	15	100%	8771	8417	3143	981	12079
A1	15	100%	8464	8200	3532	864	13355
B75	15	100%	8032	7570	2768	881	10962
B78	15	100%	6187	6038	2181	880	8867
B71	15	100%	6186	6292	2462	825	9176
B13	14	93%	14542	13307	4706	1532	17746
B38	14	93%	8031	7896	2976	941	11570
B44	14	93%	20947	20516	4123	9278	24700
B46	14	93%	4976	4880	1427	525	6725
B47	14	93%	12971	12298	4053	2036	16624
B49	14	93%	15250	14505	4599	2968	19065
<b>B53</b>	14	93%	9556	9109	3124	1549	12650
B59	14	93%	4987	4950	1432	1063	7408
B76	14	93%	21409	20609	4465	8613	25071
<b>B18</b>	13	86%	4184	4554	989	2797	6188
B37	13	86%	5667	5860	1807	1175	8871
B48	13	86%	3584	3591	754	2453	5079
B51	13	86%	7769	7428	2105	1399	10176
B52	13	86%	5392	5349	1388	1455	7069
B63	13	86%	3473	3384	811	2215	4962
A23	12	80%	5393	4602	1887	1321	7249
B57	12	80%	3723	3862	933	2781	6257
B58	11	73%	2215	2474	585	1863	3955
B39	9	60%	1653	2154	989	1325	4643
A24	8	53%	4831	4639	1796	879	6859
B56	6	40%	1219	1354	333	1036	1911
B8	6	40%	1670	1866	574	1281	3019

Class II							
*** Serum 173 ***							
14 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DR4	15	100%	5622	5319	1962	1643	9288
<b>DQ7</b>	14	93%	3649	3505	1399	807	6843
DQ8	14	93%	3603	3581	1471	888	7022
DQ9	14	93%	3631	3527	1399	915	6666
<b>DR51</b>	12	80%	1883	1904	612	910	2719
<b>DR53</b>	10	66%	2156	1915	601	579	2544
DQA1*03	3	20%	3655	3025	1208	1335	4086
DQ4	2	13%	1490	1489	490	1000	1979
DR15	2	13%	822	821	126	696	947
DR16	2	13%	870	870	116	754	986

**Blue** = DSA against cell #169 only

**Gold** = DSA against cell #170 only

**Green** = DSA against cell #169 and #170

**Table 15. Summary of Single Antigen results for Serum #174**

Class I							
*** Serum 174 ***							
12 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
A11	10	83%	1553	1807	529	1209	2811
A1	2	25%	1100	991	243	655	1220
A25	3	25%	1100	913	269	533	1108
NEG	2	17%	-	-	-	-	-
A1101	1	8%	2309	2309	-	2309	2309
A1102	1	8%	2154	2154	-	2154	2154
A1C	1	8%	500	500	-	500	500
A3	1	8%	510	510	-	510	510
A66	1	8%	1113	1113	-	1113	1113
A6601	1	8%	1000	1000	-	1000	1000
A80	1	8%	1072	1072	-	1072	1072

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

Class II							
*** Serum 174 ***							
15 typing Labs							
Antigen	No.Labs	Consensus	Median	Mean	Std Dev	Min	Max
DR15	15	100%	12724	12324	2397	6628	16863
DR16	15	100%	10904	10537	2141	5365	14740
DR51	15	100%	9722	10020	2992	1819	16464
DR9	8	53%	1491	1490	317	1020	2055
DPw1	5	33%	1152	1250	420	750	1994
DP11	4	26%	1248	1196	171	919	1369
DP19	4	26%	1118	1095	200	804	1340
DP9	4	26%	1089	1085	159	886	1277
DPw3	4	26%	1186	1202	183	1000	1436
DPw5	4	26%	1097	1072	127	900	1195
DPw6	4	26%	1280	1160	238	750	1330
DP13	3	20%	1036	938	140	740	1039
DP14	3	20%	995	938	139	746	1073
DP17	3	20%	1134	1027	153	811	1137
DQ6	3	20%	1195	1161	341	728	1561
DP20	2	13%	990	990	223	767	1213
DR1	2	13%	710	710	155	555	865
DR10	2	13%	798	798	77	721	875
DP10	1	6%	683	683	-	683	683
DR103	1	6%	767	767	-	767	767
DR11	1	6%	1093	1093	-	1093	1093
DR12	1	6%	587	587	-	587	587
DR13	1	6%	834	834	-	834	834
DR8	1	6%	640	640	-	640	640

**Table 16a. Individual laboratory results for Serum #171 - class I by One Lambda Single Antigen**

**** Serum 171 ****																						
Ctr	A2	A68	A69	B13	B42	B47	B55	B57	B60	B61	B63	B67	B7	B73	B81	B27	B2708	B48	B54	B56	B58	B82
230	9640	7162	7994	9046	6875	10332	6033	5134	15346	13163	3700	7861	17032	7636	16902	14061		9792	3817	4918	4492	3142
615	12171	8817	9024	11410	9128	10544	7731	6643	15020	14457	4545	9299	17828	8599	16984	14532		10110	4915	6361	5473	4329
792	7462	5048	5287	7968	4939	7204	4013	3729	10867	10378	2379	4900	12874	5450	12409	10554		7254	2614	3206	2862	2172
1426	5479	3630	3445	5766	5453	5713	4258	3860	9197	8744	2742	6174	11379	6495	11217	9927		6466	3120	3635	3209	2568
2400	8274	5535	6188	7655	5746	8151	4738	3736	11925	10717	2609	5933	14517	6314	14147	11314		8331	2811	3694	3196	2478
3224	9302	6310	6512	9466	6257	8165	5200	4381	12753	11885	2408	6474	15056	6840	14015	12279		8269	3146	3995	3387	2494
3632	7291	4574	4683	7326	4820	5533	4042	4196	8644	8950	2035	5068	11929	6345	10859	10358		5643	2415	3287	3162	1962
3753	7708	4953	5450	7189	6034	7830	5160	4040	12186	11225	2966	6748	15332	5994	14819	11883		8098	3066	3984	3394	2623
5214	11551	7631	8082	10591	7810	9550	6663	5365	14918	14365	3811	8102	17472	7393	16659		14887	9791	3912	4962	4319	3283
8001	10473	6824	7225	10308	7274	9308	5631	4811	13918	12991	3423	7034	16404	6358	15429	13746		8912	3518	4542	3759	3096
8050	11013	7865	7797	9873	9746	11432	8046	6065	16678	15819	4934	10365	20004	9591	19108	16108		11210	5072	6482	5311	4320
8083	11417	7432	7746	11096	7706	9774	5992	5605	15024	13615	3462	7734	17346	8001	16985	14709		9992	3695	4749	4418	3101
8111	10000	7200	7500	9200	8600	10500	7200	5800	16000	14000	4500	9400	19000	9000	17500	14600		10400	4700	5800	5000	4000
<b>Avg</b>	9368	6383	6687	8992	6953	8772	5747	4874	13267	12331	3347	7315	15859	7232	15156	12839	-	8790	3600	4586	3999	3044
<b>Std</b>																						
<b>Dev.S</b>	2005	1518	1600	1705	1589	1859	1358	970	2577	2208	924	1680	2655	1263	2535	2042	-	1640	865	1099	889	776
<b>MFI</b>																						
<b>%CV</b>	21%	24%	24%	19%	23%	21%	24%	20%	19%	18%	28%	23%	17%	17%	17%	16%	-	19%	24%	24%	22%	25%

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 16b. Individual laboratory results for Serum #171 - class I by Lifecodes-Immucor**

**** Serum 171 ****																						
Ctr	A2	A68	A69	B13	B42	B47	B55	B57	B60	B61	B63	B67	B7	B73	B81	B27	B2708	B48	B54	B56	B58	B82
3808	2086	1664	1408	1569	1219	2830	1057	850	3136	3086	809	1340	4505	1808	4102	4424	4424	776				
8029	2706	2102	1589	865	1311	1782	1411	1171	1761	1315	879	1735	5118	2099	1912	4833	5589		829	946	850	884
<b>Avg</b>	2396	1883	1499	1217	1265	2306	1234	1011	2449	2201	844	1538	4812	1954	3007	4629	5007	-	-	-	-	-
<b>Std</b>																						
<b>Dev.S</b>	438	310	128	498	65	741	250	227	972	1252	49	279	433	206	1549	289	824	-	-	-	-	-
<b>MFI</b>																						
<b>%CV</b>	18%	16%	9%	41%	5%	32%	20%	22%	40%	57%	6%	18%	9%	11%	51%	6%	16%	-	-	-	-	-

**Table 16a. Individual laboratory results for Serum #171 - class I by One Lambda Single Antigen, cont.**

**** Serum 171 ****								
Ctr	A66	A6602	A24	A32	A25	A30	Other	
230	4487		2203	2218				One Lambda
615	5332	5332	2775	2884	2384	2638	B45,A23	One Lambda
792	2925							One Lambda
1426	3163							One Lambda
2400	3642							
3224		3924	1912	1749	1218		A23,A*30:02	One Lambda
3632		3685						One Lambda
3753	2461			1422				One Lambda
5214		4521	2134	2203			B2705	One Lambda
8001		3391	1799	2132	1698	1778		One Lambda
8050	3764		1227	2407	1699	1906		One Lambda
8083	4600							One Lambda
8111		4000	1200	2400	1700			One Lambda
<b>Avg</b>	3797	4142	1893	2177	1740	2107		
<b>Std</b>								
<b>Dev.S</b>	960	693	558	441	416	464		
<b>MFI</b>								
<b>%CV</b>	25%	17%	29%	20%	24%	22%		

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 16b. Individual laboratory results for Serum #171 - class I by Lifecodes-Immucor, cont.**

**** Serum 171 ****								
Ctr	A66	A6602	A24	A32	A25	A30	Other	
3808	1203	1203					A203,B703,B8101,B2705	Immucor
8029	1870		722				A203,B703,Bw4,Bw6 >	LIFECODES
<b>Avg</b>	1537	-	-	-	-	-		
<b>Std</b>								
<b>Dev.S</b>	472	-	-	-	-	-		
<b>MFI</b>								
<b>%CV</b>	31%	-	-	-	-	-		

**Table 17a. Individual laboratory results for Serum #172 - class I by One Lambda Single Antigen**

**** Serum 172 ****																		
Ctr	B18	B35	B44	B51	B53	B57	B58	B77	B78	B37	B52	B75	A2	B13	Cw18	Cw6	Other	
230	4574	10731	6500	8225	10453	8887	7534	6040	7463	2384		3732	2078	3993			B62	One Lambda
615	3566	9482	6925	6188	9318	8754	6775	5099	5838	1719	1427	2805	1157	3360				One Lambda
792	3836	10601	8238	6889	10718	10342	8076	6113	6136	1980	1519	3901		3866				One Lambda
1426	5476	11801	6824	8478	11173	8389	8281	5772	7939	3202	2758	3949	1573	4238	1651	1170	B71	One Lambda
2400	4899	12530	6868	8352	11569	9743	8454	6548	7792	2642	2132	3689		4504				
3224	3320	8607	5938	5973	8419	7842	5790	4206	5335		1385		1025				B*13:01,B*15:02	One Lambda
3632	3538	9651	7004	5816	9164	8974	6843	4967	5320	1794	1601	3902		2031				One Lambda
3753	3817	12526	6541	8817	12430	10141	8698	5817	8139	1951	1422	2377	1681	3984				One Lambda
5214	3774	10568	4814	7695	9798	6717	5207	3159	7219									One Lambda
8001	4784	12288	7716	8844	11964	9977	7642	5381	8005	2225	1947	2738	1609	3589				One Lambda
8050	6394	15708	8069	12011	14735	11782	10192	6972	10904	3354	2757	3956	1874	3496	1855	1386	B71	One Lambda
8083	6891	12800	9923	10108	13002	12133	9584	7857	10045	3697	2729	5168	2515	5703				One Lambda
8111	5800	15000	8800	10500	14500	12100	11100	7900	9700	3200	2700		2000		2100	1700		One Lambda
<b>Avg</b>	4667	11715	7243	8300	11326	9675	8014	5833	7680	2559	2034	3622	1724	3876	1869	1419		
<b>Std</b>																		
<b>Dev.S</b>	1171	2082	1311	1846	1976	1654	1673	1341	1769	700	601	801	461	930	225	267		
<b>MFI</b>																		
<b>%CV</b>	25%	18%	18%	22%	17%	17%	21%	23%	23%	27%	30%	22%	27%	24%	12%	19%		

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 17b. Individual laboratory results for Serum #172 - class I by Lifecodes-Immucor**

**** Serum 172 ****																		
Ctr	B18	B35	B44	B51	B53	B57	B58	B77	B78	B37	B52	B75	A2	B13	Cw18	Cw6	Other	
3808	1280	4497	5287	3148	6416	5952	4617	4426	3441	982	783	973					B7801	Immucor
8029	1127	4574	4206	2170	6523	5721	3901	2499	3524	819	514	658	775				A24,A203,Bw4,Bw6 >	LIFECODES
<b>Avg</b>	1204	4536	4747	2659	6470	5837	4259	3463	3483	901	649	816	-	-	-	-		
<b>Std</b>																		
<b>Dev.S</b>	108	54	764	692	76	163	506	1363	59	115	190	223	-	-	-	-		
<b>MFI</b>																		
<b>%CV</b>	9%	1%	16%	26%	1%	3%	12%	39%	2%	13%	29%	27%	-	-	-	-		

**Table 18a. Individual laboratory results for Serum #173 - class I by One Lambda Single Antigen**

**** Serum 173 ****																										
Ctr	A1	B35	B41	B45	B50	B60	B61	B62	B71	B72	B75	B77	B78	B82	B13	B38	B44	B46	B47	B49	B53	B59	B76	B18	B37	
230	11099	8490	15586	23088	15227	15043	13270	9795	9176	11508	8684	11307	6954	17002	15624	9993	21458	5620	15144	17197	11016	5586	22457	4744	7108	
615	11680	11923	16494	20369	15449	16701	15596	13344	9173	13053	10962	12042	8867	15320	17746	11452	20416	4938	15797	18126	12085	7408	20819	6188	8871	
792	8464	7489	12125	21435	11901	11584	11236	7891	4844	8246	6516	7630	4961	14488	12649	6481	20436	3936	11218	13363	8481	3820	20048	3420	4644	
1426	5953	8131	12776	22390	12056	12026	11316	10391	5902	10300	7312	8376	5726	13781	11815	7640	18951	4759	11013	14260	8627	4745	20809	4184	5667	
2400	9792	8619	13589	22710	12206	11982	11635	9274	5586	9379	7116	8567	5937	15797	13024	7442	20169	4504	11767	14147	9090	4381	21317	4113	5099	
3224	10104	9108	12690	20590	13404	12764	11788	9958	6186	9911	7661	9201	6187	14700	14366	8119	20092	4562	12307	14477	9280	4836	19517	4125	5009	
3632	7955	9411	12150	23406	12495	10926	11637	10920	8950	11058	8032	8886	6997	14288	13819	7943	22032	4446	11250	14278	9772	5138	21501	4696	5435	
3753	7435	7307	14636	27009	14810	14175	12691	9399	5102	8633	7216	9241	4935	17354	14717	7858	24378	5014	13634	16023	9339	3922	25071	2797	5136	
5214	12402	12079	17468	23155	17466	17267	16423	13363	8458	13239	10741	12674	8487	18969	17644	11570	22774	5774	16624	19065	12650	6083	22826	5916	7422	
8001	10193	9672	16437	25197	15990	15714	14549	10685	6572	10917	8650	10905	6780	16983	17110	9130	24357	5389	15687	17331	11161	5153	23066	4175	6340	
8050	4636	8771	16126	26593	15610	14807	14229	10642	5818	10353	8323	10151	5988	17092	15159	8923	24066	5628	14463	17371	10225	4798	24737	3645	6676	
8083	13355	11587	17738	26692	17070	16600	16116	12915	8164	13319	9684	12258	8174	19115				6725				6273		5801		
8111	7100	11000	18000	26800	16800	17200	15500	13400	8000	13000	10000	12000	7900	18000	17200	10800	24700	6500	16000	19000	11600	6100	25000	5400	7600	
<b>Avg</b>	9244	9507	15063	23803	14653	14368	13537	10921	7072	10994	8531	10249	6761	16376	15073	8946	21986	5215	13742	16220	10277	5249	22264	4554	6251	
<b>Std Dev.S</b>	2588	1642	2184	2404	2012	2286	1955	1798	1617	1751	1433	1706	1293	1780	2037	1669	2020	821	2130	2048	1397	1019	1922	1029	1303	
<b>MFI</b>																										
<b>%CV</b>	28%	17%	14%	10%	14%	16%	14%	16%	23%	16%	17%	17%	19%	11%	14%	19%	9%	16%	15%	13%	14%	19%	9%	23%	21%	

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 18b. Individual laboratory results for Serum #173 - class I by Lifecodes-Immucor**

**** Serum 173 ****																										
Ctr	A1	B35	B41	B45	B50	B60	B61	B62	B71	B72	B75	B77	B78	B82	B13	B38	B44	B46	B47	B49	B53	B59	B76	B18	B37	
3808	1976	1700	4614	12263	5753	4153	4445	2470	1624	2316	1777	3033	1808	11446	3905	2265	14122		5244	5470	2655	1063	12750		1175	
8029	864	981	2208	8382	3482	1519	1231	1478	825	1034	881	1481	880	8062	1532	941	9278	525	2036	2968	1549		8613			
<b>Avg</b>	1420	1341	3411	10323	4618	2836	2838	1974	1225	1675	1329	2257	1344	9754	2719	1603	11700	-	3640	4219	2102	-	10682	-	-	
<b>Std Dev.S</b>																										
<b>MFI</b>																										
<b>%CV</b>	55%	38%	50%	27%	35%	66%	80%	36%	46%	54%	48%	49%	49%	25%	62%	58%	29%	-	62%	42%	37%	-	27%	-	-	

**Table 18a. Individual laboratory results for Serum #173 - class I by One Lambda Single Antigen, cont.**

**** Serum 173 ****															
Ctr	B48	B51	B52	B63	A23	B57	B58	B39	A24	B56	B8	B64	Bw4	Other	
230	4113	8523	6095	3473	5615	4043	2728	4643	5108					B4005	One Lambda
615	5079	10176	7069	4962	5170	6257	3955	2879	4553	1911	3019	1860		B54,B55	One Lambda
792	2463	6320	4448	2351	4541	3049	1863		4010						One Lambda
1426	3584	6784	5058	3588	1769	2781	1986	1653		1043	1608				One Lambda
2400	3303	7053	5139	3020	5936	3189			5564						
3224	3045	7507	5392	2617	5770	3781	2128	1631		1241	1460		20092	A*24:02	One Lambda
3632	3734	7809	6059	3966	6155	3664	2020		6637						One Lambda
3753	2453	6294	4490	2215	1321	3042	2019	1325							One Lambda
5214	4299	9959	6884	3927	5802	4791	2768	2051							One Lambda
8001	3392	7974	5392	3025	4207	4266	2634	1600	3507	1196	1732	1071			One Lambda
8050	2802	7769	5362	2505		3188	2215	1412		1036	1281				One Lambda
8083	4218			4353	7249				6859				26253	B15	One Lambda
8111	4200	9000	6700	4000	1700	4300	2900	2200		1700	2100	1700			One Lambda
<b>Avg</b>	3591	7931	5674	3385	4603	3863	2474	2155	5177	1355	1867	1544	23173		
<b>Std Dev.S</b>	784	1287	885	844	1971	974	613	1049	1269	365	629	417	4356		
<b>MFI</b>															
<b>%CV</b>	22%	16%	16%	25%	43%	25%	25%	49%	25%	27%	34%	27%	19%		

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 18b. Individual laboratory results for Serum #173 - class I by Lifecodes-Immucor, cont.**

**** Serum 173 ****															
Ctr	B48	B51	B52	B63	A23	B57	B58	B39	A24	B56	B8	B64	Bw4	Other	
3808		1399	1455											B7801	Immucor
8029									879				9278	Bw6	LIFECODES
<b>Avg</b>	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Std Dev.S</b>	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>MFI</b>															
<b>%CV</b>	-	-	-	-	-	-	-	-	-	-	-	-	-		

**Table 19a. Individual laboratory results for Serum #174 - class I by One Lambda Single Antigen**

**** Serum 174 ****					
Ctr	A11	A1	A25	Other	
230	2201				One Lambda
615	1425	655	533	A3	One Lambda
792	NEG				One Lambda
1426	1460				One Lambda
2400	NT				
3224	1224				One Lambda
3632	NT				One Lambda
3753	1474				One Lambda
5214				A1101,A1102	One Lambda
8001	1631				One Lambda
8050	2811	1220	1108	A66,A80	One Lambda
8083	NT				One Lambda
8111	2400	1100	1100	A1C,A6601	One Lambda
<b>Avg</b>	1828	992	914		
<b>Std</b>					
<b>Dev.S</b>	568	298	330		
<b>MFI</b>					
<b>%CV</b>	31%	30%	36%		

**Blue** = DSA against cell #169 only

**Gold** = DSA against cell #170 only

**Green** = DSA against cell #169 and #170

**Table 19b. Individual laboratory results for Serum #174 - class I by Lifecodes-Immucor**

**** Serum 174 ****					
Ctr	A11	A1	A25	Other	
3808	NEG				Immucor
8029	1209				LIFECODES
<b>Avg</b>	-	-	-		
<b>Std</b>					
<b>Dev.S</b>	-	-	-		
<b>MFI</b>					
<b>%CV</b>	-	-	-		

**Table 20a. Individual laboratory results for Serum #171 - class II by One Lambda Single Antigen**

**** Serum 171 ****																							
Ctr	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR1	DR103	DR11	DR12	DR13	DR14	DR15	DR16	DR4	DR8	DR51	DR9	DR10	DPw5	DR7	Other	
230	20001	21044	23490	19784	20681	22188	6741	7361	6026	5928	6740	3267	11140	9762	4065	3798			3122			One Lambda	
615	18578	21131	22207	19907	20812	19502	5124	5132	4860	4326	5414	3616	8518	7053	3704	2912	9037	4162	2078	1812	1147	DR53	One Lambda
792	20516	23186	23770	22041	21277	20844	4463	4900	4326	3646	5109	3382	7830	6228	3946	2783	8463	3442	1853	1513			One Lambda
1426	18717	22232	22206	18159	19361	19535	4272	5464	4495	3649	4879	2287	7141	5945	3466	3032	7130	3370	2276	1218			One Lambda
2400	17549	20366	22203	16565	18745	18397	3930	4616	3519	3102	4335	3143	7213	6067	3133	2400	7663	3021					
3224	19504	22094	22630	21431	20924	20585	5228	5845	4808	4232	5812	4061	8605	7756	4391	3284	9260	4154	2230		1011	DQA1*01	One Lambda
3632	22238	24760	26242	23710	23678	22842	4764	5025	4311	3687	5389	3627	7453	6038	4110	2795	7615	3590	2463			DR1403	One Lambda
3753	21068	27205	27747	22102	23542	25773	4680	5327	4311	4308	5528	2260	8502	6715	3462	2969	8761	3001	1885				One Lambda
5214	22880	23530	23899	23302	23178	22834	7119	7311	6255	5564	7872	5552	11427	9273	5836	4018	12004	4868	2854				One Lambda
8001	23939	27231	27046	25408	24998	23967	5626	5803	5288	4534	6528	4425	9401	7576	4653	3300	9704	4153	2445	1636	1084		One Lambda
8050	22752	26636	27178	21748	23451	23400	6614	7684	5912	5528	7566	3124	11024	8915	4731	4090	11481	4242	2435	2331	1046		One Lambda
8083	24651	26455	28240	25282	24376	24338	8317	9043	9103	7865	9190	6659	12941	11039	7616	6083	13049	6711					One Lambda
8111	22000	25000	26000	21000	22000	21700	7800	8900	7000	6700	8800	4100	12000	9800	6000	5200	12800	5300	3700	2700	1800		One Lambda
<b>Avg</b>	21107	23913	24835	21572	22079	21993	5744	6339	5401	4851	6397	3808	9477	7859	4547	3590	9747	4168	2486	1868	1218		
<b>Std Dev.S</b>	2187	2466	2295	2576	1950	2154	1424	1533	1477	1384	1542	1220	1987	1720	1262	1053	2076	1063	553	550	329		
<b>MFI</b>																							
<b>%CV</b>	10%	10%	9%	12%	9%	10%	25%	24%	27%	29%	24%	32%	21%	22%	28%	29%	21%	25%	22%	29%	27%		

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 20b. Individual laboratory results for Serum #171 - class II by Lifecodes-Immucor**

**** Serum 171 ****																							
Ctr	DQ4	DQ5	DQ6	DQ7	DQ8	DQ9	DR1	DR103	DR11	DR12	DR13	DR14	DR15	DR16	DR4	DR8	DR51	DR9	DR10	DPw5	DR7	Other	
3808	12107	11826	14281	8848	14929	14465	1779	2137	2486	1655	2066	966	3659	2681	1950	967	3870	1121				DR1403,DQA1*01+	Immucor
8029	17184	16446	18250	16121	17935	17706	5353	5895	6567	4456	5395	2382	8568	6937	5374	2844	8919	3406	2054	2518	1715	DR1403,DR1404+	LIFECODES
<b>Avg</b>	14646	14136	16266	12485	16432	16086	3566	4016	4527	3056	3731	1674	6114	4809	3662	1906	6395	2264					
<b>Std Dev.S</b>	3590	3267	2807	5143	2126	2292	2527	2657	2886	1981	2354	1001	3471	3009	2421	1327	3570	1616					
<b>MFI</b>																							
<b>%CV</b>	25%	23%	17%	41%	13%	14%	71%	66%	64%	65%	63%	60%	57%	63%	66%	70%	56%	71%					

**Table 21a. Individual laboratory results for Serum #172 - class II by One Lambda Single Antigen**

**** Serum 172 ****											
Ctr	DR12	DR13	DR8	DR14	DR11	DR17	DR18	DR52	DR9	DR7	Other
230	3369	3436	6776	3238	2420	2083	2217	2234			One Lambda
615	2329	2549	5191	1601	1365	1039	1401	1224	1248	626	One Lambda
792	2220	2286	5639	1557							One Lambda
1426	1849	1976	5568	1446	1455	1087	1351	1286	1286		One Lambda
2400	2746	2390	5996	1569	1600	1178	1567	1235	1297	698	
3224	1978	2229	5109	1412	1209	907	1093	1054			One Lambda
3632	1766	1819	4595	3613							One Lambda
3753	2178	2295	6933	1868	1753	1490	1710	1327	1483		One Lambda
5214	2057	2247	5751								One Lambda
8001	2380	2543	5970	1647	1559	1097	1482	1252	1264		One Lambda
8050	2689	2808	8630	1923	2015	1554	1952	1734	1534		One Lambda
8083	6794	6560	12871	5070	4321	3232	4490	3675	3747		One Lambda
8111	3100	3300	8400	2300	2300	1800	2300	2000	2000	1200	One Lambda
<b>Avg</b>	2727	2803	6725	2270	2000	1547	1956	1702	1732	841	
<b>Std Dev.S</b>											
<b>MFI</b>											
<b>%CV</b>	48%	44%	33%	50%	45%	45%	50%	47%	49%	37%	

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 21b. Individual laboratory results for Serum #172 - class II by Lifecodes-Immucor**

**** Serum 172 ****											
Ctr	DR12	DR13	DR8	DR14	DR11	DR17	DR18	DR52	DR9	DR7	Other
3808	1480	1679	2666	2555	1888	1332	1440	1249	840	791	DR1403,DR1404
8029	2779	3326	4102	2769	3665	2560	2666	2313	1639	1424	DR1403,DR1404,DQ2,DQ8 >
<b>Avg</b>	2130	2503	3384	2662	2777	1946	2053	1781	1240	1108	
<b>Std Dev.S</b>											
<b>MFI</b>											
<b>%CV</b>	43%	47%	30%	6%	45%	45%	42%	42%	46%	40%	

**Table 22a. Individual laboratory results for Serum #173 - class II by One Lambda Single Antigen**

**** Serum 173 ****									
Ctr	DR4	DQ7	DQ8	DQ9	DR51	DR53	DQA1*03	Other	
230	5622	3824	3826	4292	2529	2294	3655		One Lambda
615	7875	4768	5023	4915	2719	2544		DR15,DR16,DQ4	One Lambda
792	5602	3095	3220	3125	1663				One Lambda
1426	3092	2415	2153	2233	1215	1421			One Lambda
2400	5097	2760	3037	2539					
3224	6050	3946	4086	4028	1745	2018	4086	DR15,DR16	One Lambda
3632	4111	2460	2491	2346					One Lambda
3753	3505	2060	1991	2238	1406	1332			One Lambda
5214	6912	4786	5076	4826	2546	2355			One Lambda
8001	6329	3846	4126	3901	2021	1810	1335		One Lambda
8050	5888	3473	3405	3360	2203	2298			One Lambda
8083	9288	6843	7022	6666					One Lambda
8111	6100	4000	3800	4000	2700	2500		DQ4	One Lambda
<b>Avg</b>	5805	3714	3789	3728	2075	2064	-		
<b>Std Dev.S</b>	1687	1277	1368	1292	550	451	-		
<b>MFI</b>									
<b>%CV</b>	29%	34%	36%	35%	26%	22%	-		

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 22b. Individual laboratory results for Serum #173 - class II by Lifecodes-Immucor**

**** Serum 173 ****									
Ctr	DR4	DQ7	DQ8	DQ9	DR51	DR53	DQA1*03	Other	
3808	1643				910				Immucor
8029	2675	807	888	915	1196	579			LIFECODES
<b>Avg</b>	2159	-	-	-	1053	-	-		
<b>Std Dev.S</b>	730	-	-	-	202	-	-		
<b>MFI</b>									
<b>%CV</b>	34%	-	-	-	19%	-	-		

**Table 23a. Individual laboratory results for Serum #174 - class II by One Lambda Single Antigen**

**** Serum 174 ****																	
Ctr	DR15	DR16	DR51	DR9	DPw1	DP11	DP19	DP9	DPw3	DPw5	DPw6	DP13	DP14	DP17	DQ6	Other	
230	11759	9989	8898														One Lambda
615	13105	11213	11236	1760	1347	919	804	886	1048	900	1330	740	746	811	728	DR1,DR10,DP10,DP20	One Lambda
792	12724	10970	11155	1530													One Lambda
1426	9143	7758	1819	1073	1009												One Lambda
2400	12079	10904	10151														
3224	10790	9407	8822	1451													One Lambda
3632	10225	9033	9376														One Lambda
3753	12196	10004	9074														One Lambda
5214	13313	11142	11721														One Lambda
8001	13146	11129	12056	1431													One Lambda
8050	16863	14740	9722	2055	1994	1369	1340	1277	1436	1195	1287	1039	1073	1137	1561	DP20	One Lambda
8083	15228	13391	12711														One Lambda
8111	14300	12200	8600	1600	750	1300	1200	1200	1000	1000	750						One Lambda
<b>Avg</b>	12682	10914	9642	1557	1275	1196	1115	1121	1161	1032	1122	890	910	974	1145		
<b>Std Dev.S</b>	2061	1827	2717	304	538	242	278	207	239	150	323	211	231	231	589		
<b>MFI</b>																	
<b>%CV</b>	16%	17%	28%	19%	42%	20%	25%	18%	21%	15%	29%	24%	25%	24%	51%		

Blue = DSA against cell #169 only  
 Gold = DSA against cell #170 only  
 Green = DSA against cell #169 and #170

**Table 23b. Individual laboratory results for Serum #174 - class II by Lifecodes-Immucor**

**** Serum 174 ****																	
Ctr	DR15	DR16	DR51	DR9	DPw1	DP11	DP19	DP9	DPw3	DPw5	DPw6	DP13	DP14	DP17	DQ6	Other	
3808	6628	5365	8498														Immucor
8029	13363	10820	16464	1020	1152	1196	1036	977	1324	1194	1273	1036	995	1134	1195	DR1,DR103,DR8,DR10 >	LIFECODES
<b>Avg</b>	9996	8093	12481	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Std Dev.S</b>	4762	3857	5633	-	-	-	-	-	-	-	-	-	-	-	-		
<b>MFI</b>																	
<b>%CV</b>	48%	48%	45%	-	-	-	-	-	-	-	-	-	-	-	-		

## Paper Challenge

**Table 24. Individual Virtual crossmatch results for Serum #173 vs Donor# V1**

Donor #V1 HLA genotype: A\*02:01:01-A\*26:01:01-B\*51:02:01-B\*55:01:01-C\*03:03:01-C\*08:01:01-DRB1\*04:07:01-DRB1\*16:01:01-DRB4\*01:03:01-DRB5\*02:02:01-DQA1\*01:02:02-DQA1\*03:01:01-DQB1\*03:02:01G-DQB1\*05:02:01G-DPA1\*01:03:01-DPA1\*02:01:01-DPB1\*04:02:01G-DPB1\*14:01:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	173	42%	Positive	B51 (8525)	Positive	DR4 (4884) DQ8 (3826)	Unacceptable	
792	173	97	Positive	B51 (6074)	Positive	DR4 (5602) DQ8 (3220)	Unacceptable	
1426	173	99%	Positive	B51 (6577)	Positive	DR4 (2574) DR53 (1540) DQ8 (1731)	Unacceptable	
1461	173	32	Positive	B51 (1270)	Positive	DR4 (1627) DR51 (819)	Unacceptable	
2400	173	97%	Positive	B51 (6644)	Positive	DR4 (5155) DR51 (1584) DR53 (1362) DQ8 (1803)	Unacceptable	
3224	173	99.7	Positive	B51 (7507) Bw4 (20092)	Positive	DR4 (6050) DR16 (754) DR51 (1745) DR53 (2018) DQ8 (4086) DQA1*03 (4086)	Unacceptable	CLASS 1 Unacceptable Present. CLASS 2 Unacceptable Present
3632	173	97	Positive	B51 (7763)	Positive	DR4 (2686) DQ8 (1620)	Unacceptable	DSA to B51 (MFI = 7763). Do not recommend move forward, FXM mostly positive. DSA's DR4(MFI=2686) and DQ8 (MFI = 1620). Do not recommend move forward
3753	173	99.12%	Positive	B51 (6294)	Positive	DR4 (3505) DR51 (1406) DR53 (1332) DQ8 (1991)	Unacceptable	
3808	173		Positive	B51 (1399)	Positive	DR4 (1643) DR51 (910)	Unacceptable	
3966	173	100%	Positive	B51 (7587)	Positive	DR4 (6796) DR51 (1543) DR53 (2263) DQ8 (3603)	Unacceptable	No bead DRB1*04:07 in SAB panel
8001	173	100	Positive	B51 (7974)	Positive	DR16 (581) DR51 (1595) DR53 (1810) DQ8 (4126)	Unacceptable	DSA to DRB1*04:07 not ruled out as it is not represented on our LSAB panel
8029	173	26	Positive	No class I DSA	Positive	DR51 (1196) DQ8 (888)	Borderline	-
8050	173	99.432	Positive	B51 (7769)	Positive	DR4 (5888) DR51 (2203) DR53 (2298) DQ8 (3405)	Unacceptable	
8080	173	100	Positive	B51 (7791)	Positive	DR4 (4991) DR51 (2243) DR53 (2234) DQ8 (3066)	Unacceptable	
8083	173	96.76	Positive	B51 (9551)	Positive	DR4 (9288) DR16 (1318) DR51 (3573) DR53 (3083) DQ8 (4559) DQA1*03 (4559)	Unacceptable	Class I and Class II DSA
8110	173	99%	Positive	B51 (7725)	Positive	DR4 (9689) DR51 (3750) DR53 (3447) DQ8 (5976)	Unacceptable	
8111	173	91	Positive	B51 (9000)	Positive	DR4 (6000) DR16 (500) DR53 (2500) DQ8 (3700) DQA1*03 (2000)	Unacceptable	

**Table 25. Individual Virtual crossmatch results for Serum #173 vs Donor# V2**

Donor #V2 HLA genotype: A\*01:01:01-A\*02:01:01-B\*13:02:01-B\*52:01:01-C\*06:02:01-C\*12:02:02-DRB1\*07:01:01-DRB1\*15:02:01G-DRB4\*01:03:01-DRB5\*01:02:01-DQA1\*01:03:01-DQA1\*02:01:01-DQB1\*02:01:01G-DQB1\*06:01-DPA1\*01:03:01-DPA1\*02:01:01-DPB1\*04:01:01G-DPB1\*17:01:01

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	173	42%	Positive	B13 (16438) B52 (6203) A1 (11971)	Positive	DR51 (2529) DR53 (2294)	Unacceptable	
792	173	97	Positive	B13 (12861) B52 (4448) A1 (8464)	Positive	DR51 (1663)	Unacceptable	
1426	173	99%	Positive	B13 (13092) B52 (5058) A1 (5953)	Positive	DR53 (1540)	Unacceptable	
1461	173	32	Positive	B13 (3122) B52 (1535) A1 (1754)	Positive	DR51 (819)	Unacceptable	
2400	173	97%	Positive	B13 (13478) B52 (5037) A1 (9677)	Positive	DR51 (1816) DR53 (1362)	Unacceptable	Due to Class I DSA
3224	173	99.7	Positive	B13 (14366) B52 (5392) A1 (10104) Bw4 (20092)	Positive	DR15 (696) DR51 (1745) DR53 (2018)	Unacceptable	CLASS 1 Unacceptable Present. CLASS 2 Unacceptable Present
3632	173	97	Positive	B13 (13819) B52 (6059) A1 (7955)	Positive	No class II DSA	Unacceptable	DSA's to A1(MFI=7955), B13(MFI=13819),B52(MFI= 6059).Do not recommend move forward. FXM most likely Positive. B cell VXM positive due to Class I DSA's
3753	173	99.12%	Positive	B13 (14717) B52 (4490) A1 (7435)	Positive	DR51 (1406) DR53 (1332)	Unacceptable	
3808	173		Positive	B13 (3905) B52 (1455) A1 (1976)	Positive	DR51 (884)	Unacceptable	Class I DSAs present too
3966	173	100%	Positive	B13 (14627) B52 (4812) A1 (10589)	Positive	DR51 (1543) DR53 (2263)	Unacceptable	
8001	173	100	Positive	B13 (17110) B52 (5392) A1 (10193)	Positive	DR15 (632) DR53 (1810)	Unacceptable	DSA to C*12:02 could not be ruled out as it is not represented on our LSAB panel. DSA to DRB5*01:02 could not be ruled out as it is not represented on our LSAB panel.
8029	173	26	Positive	B13 (1532) A1 (864)	Positive	DQ8 (792)	Borderline	-
8050	173	99.432	Positive	B13 (15159) B52 (5362) A1 (4636)	Positive	DR51 (2203) DR53 (2298)	Unacceptable	
8080	173	100	Positive	B13 (17213) B52 (5895) A1 (10636)	Positive	DR51 (1997) DR53 (2234)	Unacceptable	
8083	173	96.76	Positive	B13 (17655) B52 (7012) A1 (13355)	Positive	DR15 (1267) DR53 (3083)	Unacceptable	Class I and Class II DSA
8110	173	99%	Positive	B13 (18896) B52 (5417) A1 (10999)	Positive	DR51 (3750) DR53 (3447)	Unacceptable	
8111	173	91	Positive	B13 (17000) B52 (6700) A1 (6700)	Positive	DR15 (800) DR51 (2700)	Unacceptable	

**Table 26. Individual Virtual crossmatch results for Serum #173 vs Donor# V3**

Donor #V3 HLA genotype: A\*02:05-A\*68:01-B\*27:03-B\*53:01-C\*02:02-C\*04:01-DRB1\*03:01-DRB1\*08:04-DRB3\*02:02-DQA1\*04:01-DQA1\*05:01-DQB1\*02:01-DQB1\*03:19-DPA1\*01:03-DPA1\*02:01-DPB1\*17:01

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	173	42	Positive	B53 (11186)	Positive	DQ7 (4029)	Unacceptable	
792	173	97	Positive	B53 (8481)	Positive	DQ7 (3095)	Unacceptable	
1426	173	99%	Positive	B53 (8627)	Positive	DQ7 (2414)	Unacceptable	
1461	173	32	Positive	B53 (2122)	Positive	No class II DSA	Unacceptable	
2400	173	97%	Positive	B53 (8907)	Positive	DQ7 (2781)	Unacceptable	
3224	173	99.7	Positive	B53 (9280) Bw4 (20092)	Positive	DQ7 (3946)	Unacceptable	CLASS 1 Unacceptable Present. CLASS 2 Unacceptable Present
3632	173	97	Positive	B53 (9772)	Positive	DQ7 (2460)	Unacceptable	DSA to B53 (MFI = 9772). Do not recommend moving forward. Fxm most likely Positive. DSA to DQ7 (MFI = 2460) both Class I and Class II DSAs were present. Do not recommend moving forward.
3753	173	99.12%	Positive	B53 (9339)	Positive	DQ7 (2060)	Unacceptable	
3808	173		Positive	B53 (2655)	Positive	No class II DSA	Unacceptable	due to Class I DSA
3966	173	100%	Positive	B53 (9005)	Positive	DQ7 (3764)	Unacceptable	Unacceptable
8001	173	100	Positive	B53 (11161)	Positive	DQ7 (3846)	Unacceptable	DSA to A*02:05 and B*27:03 could not be ruled out as they are not represented on our LSAB panel. DSA to DRB1*08:04 could not be ruled out as it is not represented on our LSAB panel.
8029	173	26	Positive	B53 (1549)	Positive	DQ7 (631) DQ9 (621)	Borderline	-
8050	173	99.432	Positive	B53 (10225)	Positive	DQ7 (3473)	Unacceptable	
8080	173	100	Positive	B53 (10413)	Positive	DQ7 (4132)	Unacceptable	
8083	173	96.76	Positive	B53 (12373)	Positive	DQ7 (6697)	Unacceptable	Class I and Class II DSA
8110	173	99%	Positive	B53 (11144)	Positive	DQ7 (6120)	Unacceptable	
8111	173	91	Positive	B53 (11500)	Positive	No class II DSA	Unacceptable	Positive due to Class I

**Table 27. Individual Virtual crossmatch results for Serum #174 vs Donor# V1**

Donor #V1 HLA genotype: A\*02:01:01-A\*26:01:01-B\*51:02:01-B\*55:01:01-C\*03:03:01-C\*08:01:01-DRB1\*04:07:01-DRB1\*16:01:01-DRB4\*01:03:01-DRB5\*02:02:01-DQA1\*01:02:02-DQA1\*03:01:01-DQB1\*03:02:01G-DQB1\*05:02:01G-DPA1\*01:03:01-DPA1\*02:01:01-DPB1\*04:02:01G-DPB1\*14:01:01G

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell Prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	174	8%	Negative	No class I DSA	Positive	DR16 (10330) DR51 (8017)	Unacceptable	
792	174	28	Negative	No class I DSA	Positive	DR16 (10970) DR51 (8288)	Unacceptable	
1426	174	43%	Negative	No class I DSA	Positive	DR16 (8061) DR51 (1675)	Unacceptable	
1461	174	0	Negative	No class I DSA	Positive	DR16 (3985) DR51 (5534)	Unacceptable	
2400	174	28%	Negative	No class I DSA	Positive	DR16 (11290) DR51 (8453)	Unacceptable	
3224	174	37.91	Negative	No class I DSA	Positive	DR16 (9407) DR51 (8822)	Unacceptable	CLASS 2 Unacceptable Present
3632	174	28	Negative	No class I DSA	Positive	DR16 (9033) DR51 (6378)	Unacceptable	VXM positive due to Class II DSA's. Do not recommend moving forward. DSA to DR16 (MFI 9033) and DR51 (MFI 6378). Do not recommend moving forward.
3753	174	35.68%	Negative	No class I DSA	Positive	DR16 (10004) DR51 (9074)	Unacceptable	
3808	174		Negative	No class I DSA	Positive	DR51 (7453)	Unacceptable	
3966	174	82%	Negative	No class I DSA	Positive	DR16 (12319) DR51 (11059) DP14 (1020)	Unacceptable	
8001	174	38	Negative	A26 (524)	Positive	DR16 (11129) DR51 (8985)	Unacceptable	DSA to DRB1*04:07 not ruled out as it is not on the LSAB panel.
8029	174	2	Positive	No class I DSA	Positive	DR16 (10820) DR51 (14877) DPw3 (1324) DQ6 (735) DP11 (1196) DP14 (995)	Unacceptable	-
8050	174	56.696	Negative	No class I DSA	Positive	DR16 (14740) DR51 (9722) DP14 (1073)	Unacceptable	
8080	174	38	Negative	No class I DSA	Positive	DR16 (11611) DR51 (9013)	Unacceptable	Patient has Class II DSA
8083	174	28.22	Negative	No class I DSA	Positive	DR16 (13391) DR51 (9302)	Unacceptable	Class II DSA
8110	174	81%	Positive	No class I DSA	Positive	DR16 (20930) DR51 (19492)	Unacceptable	
8111	174	29	Positive	A26 (800)	Positive	DR16 (12000) DR51 (8600)	Unacceptable	

**Table 28. Individual Virtual crossmatch results for Serum #174 vs Donor# V2**

Donor #V2 HLA genotype: A\*01:01:01-A\*02:01:01-B\*13:02:01-B\*52:01:01-C\*06:02:01-C\*12:02:02-DRB1\*07:01:01-DRB1\*15:02:01G-DRB4\*01:03:01-DRB5\*01:02:01-DQA1\*01:03:01-DQA1\*02:01:01-DQB1\*02:01:01G-DQB1\*06:01-DPA1\*01:03:01-DPA1\*02:01:01-DPB1\*04:01:01G-DPB1\*17:01:01

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell Prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	174	8	Negative	No class I DSA	Positive	DR15 (11830) DR51 (8590)	Unacceptable	
792	174	28	Negative	No class I DSA	Positive	DR15 (12724) DR51 (11155)	Unacceptable	
1426	174	43%	Negative	No class I DSA	Positive	DR15 (9748) DR51 (2095)	Unacceptable	
1461	174	0	Negative	No class I DSA	Positive	DR15 (4737) DR51 (6081)	Unacceptable	
2400	174	28%	Negative	No class I DSA	Positive	DR15 (13098) DR51 (11658)	Unacceptable	
3224	174	37.91	Negative	No class I DSA	Positive	DR15 (10790) DR51 (8822)	Unacceptable	CLASS 2 Unacceptable Present
3632	174	28	Negative	No class I DSA	Positive	DR15 (10136) DR51 (8308)	Unacceptable	VXM positive due to Class II DSA's; DSA's to DR15(MFI=10136), DR51 (MFI = 8308). Do not recommend moving forward. FXM most likely Positive
3753	174	35.68%	Negative	No class I DSA	Positive	DR15 (12196) DR51 (9074)	Unacceptable	
3808	174		Negative	No class I DSA	Negative	No class II DSA	Acceptable	
3966	174	82%	Positive	A1 (1170)	Positive	DR15 (14458) DR51 (11059) DQ6 (1031)	Unacceptable	
8001	174	38	Negative	A1 (740)	Positive	DR15 (13146) DQ6 (667) DP17 (618)	Unacceptable	DSA to C*12:02 could not be ruled out as it is not represented on our LSAB panel. DSA to DRB5*01:02 could not be ruled out as it is not represented on our LSAB panel.
8029	174	2	Positive	No class I DSA	Positive	DR15 (13363) DPw3 (1324) DQ6 (1195) DP11 (1196) DP17 (1134)	Unacceptable	-
8050	174	56.696	Negative	A1 (1220)	Positive	DR15 (16863) DR51 (9722) DQ6 (1561) DP17 (1137)	Unacceptable	DSA: DQB1*06:01 (MFI=1561)
8080	174	38	Negative	No class I DSA	Positive	DR15 (12894) DR51 (9560)	Unacceptable	Patient has Class II DSA
8083	174	28.22	Negative	No class I DSA	Positive	DR15 (15228) DR51 (12711)	Unacceptable	Class II DSA
8110	174	81%	Positive	A1 (1699)	Positive	DR15 (23006) DR51 (19492)	Unacceptable	
8111	174	29	Positive	A1 (1100) A1C (500)	Positive	DR15 (14000) DQ6 (1100) DP17 (850)	Unacceptable	DQB1*06:01

**Table 29. Individual Virtual crossmatch results for Serum #174 vs Donor# V3**

Donor #V3 HLA genotype: A\*02:05-A\*68:01-B\*27:03-B\*53:01-C\*02:02-C\*04:01-DRB1\*03:01-DRB1\*08:04-DRB3\*02:02-DQA1\*04:01-DQA1\*05:01-DQB1\*02:01-DQB1\*03:19-DPA1\*01:03-DPA1\*02:01-DPB1\*17:01

Ctr	Patient	% CPRA	Virtual T Cell Prediction	Class I DSA(MFI)	Virtual B-cell Prediction	Class II DSA(MFI)	Risk Assessment	Comments
230	174	8	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
792	174	28	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
1426	174	43%	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
1461	174	0	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
2400	174	28%	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
3224	174	37.91	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
3632	174	28	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
3753	174	35.68%	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
3808	174		Negative	No class I DSA	Negative	No class II DSA	Acceptable	
3966	174	82%	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
8001	174	38	Negative	No class I DSA	Negative	DP17 (618)	Acceptable	DSA to A*02:05 and B*27:03 could not be ruled out as they are not represented on our LSAB panel. DSA to DRB1*08:04 could not be ruled out as it is not represented on our LSAB panel.
8029	174	2	Positive	No class I DSA	Positive	DPw3 (1324) DP11 (1196) DP17 (1134)	Borderline	-
8050	174	56.696	Negative	No class I DSA	Negative	DP17 (1137)	Acceptable	
8080	174	38	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
8083	174	28.22	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
8110	174	81%	Negative	No class I DSA	Negative	No class II DSA	Acceptable	
8111	174	29	Negative	No class I DSA	Negative	No class II DSA	Acceptable	Class II DEAV weak +

**Table 30: Individual Cutoff values and Pretreatment - Exchange 29**

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

**Table 30: Individual Cutoff values and Pretreatment - Exchange 29**

Ctr	Locus	Pos Cutoff Value	Locus	Pos Cutoff Value	Manufacturer	Kit type	Sera pretreatment	
3808	A	750	DRB1	750	Immucor	Single Antigen	None	
	B	750	DRB3/4/5	750				
	C	750	DQA1	750				
	Class I			DQB1				750
				DPB1				750
				Class II				
5214	A	2000	DRB1	2000	One Lambda	LabScreen Single Antigen	FCS + EDTA	
	B	2000	DRB3/4/5	2000				
	C	2000	DQA1	2000				
	Class I			DQB1				2000
				DPB1				2000
				Class II				2000
8001	A		DRB1		One Lambda	LabScreen Single Antigen	EDTA	
	B		DRB3/4/5					
	C		DQA1					
	Class I	1000		DQB1				
				DPB1				
				Class II				1000
8029	A	500	DRB1	500	LIFECODES	Single Antigen	None	
	B	500	DRB3/4/5	500				
	C	500	DQA1	500				
	Class I	31		DQB1				500
				DPB1				500
				Class II				64
8050	A	1000	DRB1	1000	One Lambda	LabScreen Single Antigen	DTT	
	B	1000	DRB3/4/5	1000				
	C	1000	DQA1	1000				
	Class I	1000		DQB1				1000
				DPB1				1000
				Class II				1000
8083	A		DRB1		One Lambda	LabScreen Single Antigen	EDTA	
	B		DRB3/4/5					
	C		DQA1					
	Class I	3000		DQB1				
				DPB1				
				Class II				3000
8111	A	1000	DRB1	1000	One Lambda	LabScreen Single Antigen	DTE	
	B	1000	DRB3/4/5	1000				
	C	1000	DQA1	1000				
	Class I	1000		DQB1				1000
				DPB1				1000
				Class II				1000