



American Foundation for Donation and Transplantation  
8154 Forest Hill Avenue, Suite 3  
Richmond, VA 23235-3255  
Ph: (804) 323-9890

## **AFDT Proficiency Testing Results – July, 2013**

### **Summary Report – Cell Sendout:**

This AFDT Proficiency Test Cell Sendout (AFDT-PTCS) consists of 5 anti-coagulated whole blood samples which, as closely as possible, represent actual patient samples as they are received by HLA laboratories for clinical testing. Federal regulations require that all PT samples must be handled and tested exactly like those clinical samples that are received in each laboratory on a routine basis. These AFDT-PTCS samples meet all mandates and guidelines for proficiency testing.

### **Grading:**

AFDT grades HLA DNA typing at 2 levels : 1) Antigen level 2) High resolution. Since we are now also grading Serology results, enter Antigen results ONLY if you do DNA typing and it should be a “translation” of the DNA type to the antigens that would be entered in UNET. (Please see the AFDT-PTCS master instructions for details.) In addition, low resolution HLA typing results may also be entered into the PT software. The 2 digit low resolution results are not graded (the Antigen level result translated from DNA typing is graded), but group results are shared for informational/educational purposes. Results obtained by serology (CDC) method are graded separately and should not be entered in the Antigen results.

AFDT-PTCS consists of 4 graded analytes:

- 1) HLA-Class I antigen level typing – This level of resolution must meet the requirements for HLA typing results entered in UNET. (ie. Low resolution typing *B\*15* must be converted to the appropriate antigen as would be entered for a patient in UNET – *B62, B63, B71, etc.*)
- 2) HLA-Class I high resolution typing – This level of resolution will be graded for the first 4 digits only (ie. *A\*01:01:01* will be entered and graded as *A\*01:01*).

If there are any ambiguities which cannot be resolved, the most common and likely allele is reported (ie. *A\*03:01/03:31* will be entered and accepted as *A\*03:01*. The rare *A\*03:31* allele can be reported in the comment section for that entry.) In the event an ambiguity includes multiple possible common alleles, the lab should make every effort to resolve the ambiguity.

- 3) HLA-Class II antigen level typing (see additional comments in #1)
- 4) HLA-Class II high resolution typing (see additional comments in #2)

The graded results of these analytes of the AFDT-PTCS reflect the guidelines and standards as set out by CLIA, UNOS, ASHI, and CAP standards, and may be submitted to those same accrediting agencies as fulfilling the requirements for yearly proficiency testing in all areas of HLA testing offered by the AFDT-PT program.

See the master AFDT-PT instructions for further details.

## **Results:**

The following are summary tables of the consensus results of each cell of the July 2013 Proficiency Test. Consensus results are given for antigen level typing, high resolution, serology, and low resolution. Antigen level (by DNA), High resolution DNA typing and Serology (CDC) typing results are graded.

## HLA Typing Summary Report

**Consensus Results** - July 2013 / Ev02

Cell [532](#)

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
<b>A</b>	30	100	30:04	100	30	100	30	100
<b>A</b>	74	100	74:01	100	74	100	74	89
<b>B</b>	58	100	15:03	100	58	100	58	89
<b>B</b>	72	100	58:01	100	15	100	72	67
<b>Bw4</b>	P	100	n/a	0	P	100	P	100
<b>Bw6</b>	P	100	n/a	0	P	100	P	100
<b>C</b>	2	100	02:10	100	02	100	2	100
<b>C</b>	10	94	03:02	100	03	94	3(10)	100
<b>DR</b>	8	100	08:04	100	08	100	8	100
<b>DR</b>	14	100	14:54	57	14	100	14	100
<b>DRw</b>	52	100	DRB3=02:02	100	DRB3=P	100	52	89
			DRB4=ND	100	DRB4=N	100		
			DRB5=ND	100	DRB5=N	100		
<b>DRw</b>	BL	89	DRB3=BL	100			BL	89
			DRB4=BL	100				
			DRB5=BL	100				
<b>DQ</b>	7	100	03:19	100	03	100	5(1)	100
<b>DQ</b>	5	100	05:03	100	05	100	7	100
<b>#Labs</b>	18		7		17		9	

Comments:

Good consensus overall. High resolution typing for DRB1\*14:54 reached only 57% consensus. DRB1\*14:54 is a common and well-defined allele that differs from DRB1\*14:01 in exon 3. Not all commercially available reagent kits resolve this ambiguity, but it is required by labs typing for NMDP to do so. Consensus for DQB1\*03:19 improved significantly since last year from 87% to 100% consensus. By serology, consensus typing for HLA-B72 remains low (67%) due to lack of good commercially available reagents.

## Consensus Results - July 2013 / Ev02

### Cell 533

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
A	3	100	03:01	100	03	100	3	100
A	11	100	11:01	100	11	100	11	100
B	7	100	07:02	100	07	100	7	100
B	BL	89	BL	100	BL	88	BL	100
Bw4	N	100	n/a	0	N	100	N	100
Bw6	P	100	n/a	0	P	100	P	100
C	7	100	07:02	100	07	100	7	100
C	BL	94	BL	100	BL	88	BL	100
DR	11	100	11:04	100	11	100	11	100
DR	15	100	15:01	100	15	100	15	100
DRw	51	100	DRB3=02:02	100	DRB3=P	100	51	100
			DRB4=ND	100	DRB4=N	100		
			DRB5=01:01	100	DRB5=P	100		
DRw	52	100	DRB3=BL	100			52	100
			DRB4=BL	100				
			DRB5=BL	100				
DQ	7	100	03:01	100	03	94	6(1)	100
DQ	6	100	06:02	100	06	100	7	100
#Labs	18		7		17		9	

Comments:

Good overall consensus.

## Consensus Results - July 2013 / Ev02

### Cell 534

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
<b>A</b>	23	100	23:01	100	23	100	23	100
<b>A</b>	33	100	33:03	100	33	100	33	100
<b>B</b>	7	100	07:06	100	07	100	7	100
<b>B</b>	44	100	44:03	100	44	100	44	100
<b>Bw4</b>	P	100	n/a	0	P	100	P	100
<b>Bw6</b>	P	100	n/a	0	P	100	P	100
<b>C</b>	7	100	07:06	86	07	100	7	100
<b>C</b>	15	100	15:05	100	15	100	BL	89
<b>DR</b>	10	100	10:01	100	10	100	10	100
<b>DR</b>	14	94	14:04	100	14	100	14	89
<b>DRw</b>	52	100	DRB3=02:02	100	DRB3=P	100	52	89
			DRB4=ND	100	DRB4=N	100		
			DRB5=ND	100	DRB5=N	100		
<b>DRw</b>	BL	83	DRB3=BL	100			BL	89
			DRB4=BL	100				
			DRB5=BL	100				
<b>DQ</b>	5	100	05:01	100	05	100	5(1)	100
<b>DQ</b>	BL	61	05:03	100	BL	65	BL	100
<b>#Labs</b>	18		7		17		9	

Comments:

Good overall consensus. While reaching consensus, there was lesser consensus for the less common C\*07:06 allele by high resolution.

**Consensus Results** - July 2013 / Ev02

**Cell 535**

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
<b>A</b>	23	100	23:01	100	23	100	23	100
<b>A</b>	24	100	24:02	100	24	100	24	100
<b>B</b>	49	100	49:01	100	49	100	49	89
<b>B</b>	51	100	51:01	100	51	100	51	100
<b>Bw4</b>	P	100	n/a	0	P	100	P	100
<b>Bw6</b>	N	100	n/a	0	N	100	N	100
<b>C</b>	2	100	02:02	100	02	100	2	100
<b>C</b>	7	100	07:01	100	07	100	7	100
<b>DR</b>	11	100	11:01	100	11	100	11	100
<b>DR</b>	BL	67	11:03	100	BL	65	BL	100
<b>DRw</b>	52	100	DRB3=02:02	100	DRB3=P	100	52	100
			DRB4=ND	100	DRB4=N	100		
			DRB5=ND	100	DRB5=N	100		
<b>DRw</b>	BL	89	DRB3=BL	100			BL	100
			DRB4=BL	100				
			DRB5=BL	100				
<b>DQ</b>	7	100	03:01	100	03	94	7(3)	100
<b>DQ</b>	BL	89	BL	100	BL	88	BL	100
<b>#Labs</b>	18		7		17		9	

Comments:

Good overall consensus.

**Consensus Results** - July 2013 / Ev02

**Cell 536**

Locus	Antigen	% Cons	Hi Res	% Cons	Lo Res	% Cons	Serology	% Cons
A	1	100	01:01	100	01	100	1	100
A	2	100	02:07	100	02	100	2	100
B	46	100	46:01	100	46	100	46	100
B	56	100	56:01	100	56	100	56	100
Bw4	N	100	n/a	0	N	100	N	100
Bw6	P	100	n/a	0	P	100	P	100
C	1	100	01:02	100	01	94	1	100
C	4	100	04:01	100	04	100	4	100
DR	8	100	08:03	100	08	100	8	100
DR	9	100	09:01	100	09	100	9	100
DRw	53	100	DRB3=ND	100	DRB3=N	100	53	100
			DRB4=01:03	86	DRB4=P	100		
			DRB5=ND	100	DRB5=N	100		
DRw	BL	83	DRB3=BL	100			BL	100
			DRB4=BL	100				
			DRB5=BL	100				
DQ	6	100	03:03	100	03	100	6(1)	100
DQ	9	100	06:01	100	06	100	9(3)	100
#Labs	18		7		17		9	

Comments:

Good overall consensus.

Additional reporting of HLA-DQA and DPA and DPB results for these cells were also received. Though there are not enough labs reporting these loci for us to grade at this time, the labs that perform them are given coded results of all labs to determine consensus for accreditation purposes. Should the number of labs reporting HLA-DQA, DPA, and/or DPB reach 10, we can officially offer graded results for these loci.

Special thanks to Marilyn Langan for maintaining the AFDT database and providing excellent technical support to the AFDT Proficiency Testing Program.

**The AFDT Specialist Course will be held in Washington, DC from June 20-26, 2014. Information and registration for the course can be obtained on our website – [www.amfdt.org](http://www.amfdt.org). This course is ABHI approved for Technologists and Director level participants**