

HDFN TECHNICAL CASE # 5

Additional cells

		Rh system						Kell						Duffy		Kidd		Xg	Lewis		MNSs				P	Lutheran		Other				
Cell	Rh	D	C	E	c	e	V	K	k	Kp ^a	Kp ^b	Js ^a	Js ^b	Fy ^a	Fy ^b	Jk ^a	Jk ^b	Xg ^a	Le ^a	Le ^b	S	s	M	N	Pl	Lu ^a	Lu ^b	Typings	Gel			
5207	r'r	0	+	0	+	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	+	0	+	+	0	+			3+		
8387	r'r	0	+	0	+	+	0	0	+	0	+	0	+	0	0	+	0	+	0	+	0	+	+	+	+	+	0	+			3+	

Titration (Tube IAT method using 2 drops plasma, 1 drop single dose RBCs, 30',37oC incubation, and AHG.)

ANTIBODY: Anti- C+D				EDC: 8/28/'08				Tech:				Date tested: 13 2/7 weeks			
Sample dilution, Reaction strength at AHG phase:															
	1	2	4	8	16	32	64	128	256	512	1024	Titer			
R1r (D+C+c+E-e+)	1+	vw+	0	0	0	0	0	0	0	0		1			
Ror (D+C-c+E-e+)	0	0	0	0	0	0	0	0	0	0		<1			
r'r (D-C+c+E-e+)	w+	0	0	0	0	0	0	0	0	0		1			
Cell type: (see above)		Manufacturer:				Lot number:				Comment:					

Question:

1. The outside laboratory identified anti-D + -C. What are the titers of these two antibodies? Is this what we would expect? Is there any other possibility other than anti-D plus anti-C? If there are other possibilities how would you investigate?

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A new specimen was received 6 weeks later, at which time the following tests were performed:

Raw serum panel

Lot# VRA113		Rh system						Kell						Duffy		Kidd		Xg	Lewis		MNSs				P	Lutheran		Other		
Cell	Rh	D	C	E	c	e	V	K	k	Kp ^a	Kp ^b	Js ^a	Js ^b	Fy ^a	Fy ^b	Jk ^a	Jk ^b	Xg ^a	Le ^a	Le ^b	S	s	M	N	P1	Lu ^a	Lu ^b	Typings	Cell	Gel
1	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	+	+	0	+	+	0	+	+	+	+	0	0	0	+	C ^w	1	
2	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	0	+	0	+	+	0	+	0	+	0	+	0	0	+		2	
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	+	+	+	+	0	0	+	+	+	+	0	+	+		3	2+
4	Ror	+	0	0	+	+	+	0	+	0	+	0	+	+	0	+	0	+	0	+	0	+	+	+	+	0	+		4	
5	r'r	0	+	0	+	+	0	0	+	0	+	0	+	+	+	+	+	+	0	+	0	+	+	+	+	0	+		5	3+
6	r''r	0	0	+	+	+	0	0	+	0	+	0	+	0	+	+	0	+	0	+	+	0	+	0	+	0	+		6	0
7	rr	0	0	0	+	+	0	+	+	0	+	0	+	0	+	0	+	+	+	0	+	+	+	0	+s	0	+		7	0
8	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	+	+	0	0	+	+	0	+	0	0	0	+		8	
9	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	+	+	+	0	+	0	+	0	+	0	0	+		9	0
10	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	+	0	0	+	0	+	+	+	0	+	0	+		10	
11	R1R1	+	+	0	0	+	0	0	+	+	+	0	+	0	+	+	+	+	0	0	0	+	+	0	+s	0	+		11	

Adloadsorbed serum panel; one aliquot adsorbed with Ror cells, one with r'r cells

Lot #05500		Rh system						Kell						Duffy		Kidd		Lewis		P	MNSs				Lutheran		Xg	Other Typings	Cell	Adsorbing cell phenotype	
Cell	Rh	D	C	c	E	e	V	K	k	Kp ^a	Kp ^b	Js ^a	Js ^b	Fy ^a	Fy ^b	Jk ^a	Jk ^b	Le ^a	Le ^b	P1	M	N	S	s	Lu ^a	Lu ^b	Xg ^a			Ror	r'r
1	R1R1	+	+	0	0	+	0	+	+	+	+	0	+	0	+	+	0	0	+	+	0	+	0	+	0	+	+		1	0	
2	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	+	0	0	0	+	+	0	+	0	0	+	+	C ^w	2	0	0
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	+	+	+	+	0	+	+	+	0	+	+	+	+		3	0	0
4	Ror	+	0	+	0	+	0	0	+	0	+	+	+	+	0	+	0	0	0	+	0	+	0	+	0	+	+		4	0	
5	r'wr	0	+	+	0	+	0	0	+	0	+	0	+	+	+	+	0	0	+	0	+	0	0	+	0	+	+		5	0	0
6	r''r	0	0	+	+	+	0	0	+	0	+	0	+	+	+	+	0	0	+	+	+	+	+	+	0	+	+	Co(b+)	6		
7	rr	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	+	+	0	0	0	+	0	+	0	+	+		7		
8	rr	0	0	+	0	+	0	0	+	+	+	0	+	+	0	0	+	0	+	+	+	+	0	+	+	+	+		8		
9	rr	0	0	+	0	+	0	0	+	0	+	0	+	0	0	+	+	+	0	+	0	+	0	0	0	+	+		9		
10	R1R1	+	+	0	0	+	0	+	+	+	+	0	+	+	0	0	+	0	+	+	+	+	0	+	0	+	+		10		
11	r''r	0	0	+	+	+	0	0	+	0	+	0	+	+	+	0	+	0	+	+	0	+	0	+	0	+	0	Co ^b +, I-	11		

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Serial titration yielded the following results:

Titration using the same R1r cell target in each case

Sample day by gestation	Sample dilution; Reaction strength at AHG phase:												
	1	2	4	8	16	32	64	128	256	512	1024	2048	Titer
13w2d	1+	vw+	0	0	0	0	0	0	0	0			1
19w4d	w+	vw+	0	0	0	0	0	0	0	0			1
24w	vw+	0	0	0	0	0	0	0	0	0			<1
27w6d	w+	w+	0	0	0	0	0	0	0	0			2
29w6d	3+	2+	w+	0	0	0	0	0	0	0			4
31w6d	4+	4+	3+	2+	1+	w+	0	0	0	0			32
33w2d	4+	4+	4+	4+	3+	2+	1+	w+	vw+	0			128

Alladsorbed serum panel, specimen from 29 weeks & 6 days, r'r adsorbing cell

		Rh system						Kell						Duffy		Kidd		Lewis		P	MNSs				Lutheran		Xg	LISS, AHG		
Cell	Rh	D	C	c	E	e	V	K	k	Kp ^a	Kp ^b	Js ^a	Js ^b	Fy ^a	Fy ^b	JK ^a	JK ^b	Le ^a	Le ^b	P1	M	N	S	s	Lu ^a	Lu ^b	Xg ^a	Cell	Raw plasma	Adsorbed plasma
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	0	+	0	+	+	+	+	0	0	+	0	+	+	3	3+	3+
4	Ror	+	0	+	0	+	+	0	+	0	+	0	+	+	0	+	+	0	+	+	+	+	0	0	0	+	0	4	3+	3+
5	r'r	0	+	+	0	+	0	0	+	0	+	0	+	+	+	0	+	+	0	0	+	+	+	+	0	+	+	5	2+	0
11	r'r	0	+	+	0	+	0	0	+	0	+	0	+	+	+	+	0	0	+	+	+	+	0	+	0	+	+	11	1+	0

