

ABID CASE #26

Additional cells (AHG is IMMUCOR anti-IgG)

Lot #27473	Rh system						Kell						Duffy		Kidd		Lewis		P	MNSs					Lutheran		Xg	Other	LISS					Eluate	
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	Typings	Cell	IS	37	AHG	CC	AHG	CC
1	RZR1	+	+	0	+	+	0	0	+	0	+	0	+	0	+	+	0	0	+	0	0	+	0	+	0	+	+	+	1	0	0	1+		0	2+
2	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	+	+	0	+	0	+	0	+	0	+	+	0	+	+	Sc:2	2	0	0	2+		0	2+
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	0	+	0	+	0	+	+	0	0	+	+	+	0	Co ^{b+}	3	0	0	1+		0	2+
4	Ror	+	0	+	0	+	0	0	+	0	+	0	+	0	0	+	0	0	0	+	+	+	0	+	0	+	0	Go ^{a+}	4	0	0	1+		0	2+
5	r'r	0	+	+	0	+	0	0	+	0	+	0	+	+	+	+	+	0	+	0	0	+	+	+	0	+	+	5	0	0	1+		0	2+	
6	r>r	0	0	+	+	+	0	0	+	0	+	0	+	0	+	0	+	0	+	+	0	+	0	+	0	+	+	6	0	0	1+		0	2+	
7	rr	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	0	0	+	+	+	0	+	+	0	+	Co ^{b+}	7	0	0	2+		0	2+	
8	rr	0	0	+	0	+	0	0	+	0	+	0	+	+	0	+	+	0	+	0	+	0	+	+	0	+	Co ^{b+}	8	0	0	1+		0	2+	
9	R1R2	+	+	+	+	+	0	0	+	0	+	0	+	+	0	+	+	0	0	0	+	+	0	+	0	+	+	I-, Bg ^{a+}	9	0	0	1+		0	2+
10	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	+	+	+	+	0	+	+	+	0	0	+	+	0	+	10	0	0	1+		0	2+	
11	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	0	+	0	0	+	+	0	+	0	+	0	+	+	11	0	0	vw+		0	2+	
12	rr	0	0	+	0	+	0	0	+	0	+	0	+	0	+	0	+	0	+	+	0	+	0	0	0	+	+	12							
13	rr	0	0	+	0	+	0	0	+	0	+	0	+	+	0	+	0	0	0	+	+	+	0	+	0	+	0	13							
14	rr	0	0	+	0	+	0	0	+	0	+	0	+	0	0	+	0	+	0	+	0	+	0	+	0	+	+	14							
15	rr	0	0	+	0	+	0	0	+	0	+	0	+	0	0	+	0	+	0	+	+	+	0	0	+	+	+	15							
16	rr	0	0	+	0	+	0	0	+	0	+	0	+	0	0	+	0	0	0	+	0	+	0	+	+	+	+	16							
Patient																												AC	0	0	vw+				

Antigen Phenotype

	Rh system				Kell				Duffy		Kidd		Lewis		MNSs											
	C	E	c	e	K	k	Kp ^a	Js ^a	Fy ^a	Fy ^b	Jk ^a	Jk ^b	Le ^a	Le ^b	S	s	M	N	P1	I	H	A ₁	C ^w			
Patient	3+	0	0	2+	1+	3+			1+	2+	1+	2+	0	2+	2+	2+	3+	3+	0				0			
Pos control	3+	4+	3+	2+	1+	3+			2+	2+	2+	2+	1+	2+	2+	2+	3+	3+	4+				1+			
Neg Control	0	0	0	0	0	0			0	0	0	0	0	0	0	0	0	0	0	0			0			

Questions:

1. What can be said about the nature of this antibody(ies)?
2. What further workup would you do to identify it?

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Specimens collected at the time of the second autologous donation were tested further as follows:

Repeat panel using Ortho anti-IgG (sensitive to IgG4)

Lot #29533		Rh system						Kell						Duffy		Kidd		Lewis		P	MNSs					Lutheran		Xg	Other	LISS; Serum					PEG; Eluate	
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	Typings	Cell	IS	37	AHG	CC	AHG	CC	
1	RZR1	+	+	0	+	+	0	0	+	0	+	0	+	+	0	+	+	0	+	+	0	+	+	0	0	+	0		1	0	0	2+		0	2+	
2	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	0	+	0	0	+	0	+	0	+	0		2	0	0	2+		0	2+	
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	+	+	+	0	+	0	+	+	0	+	0	+	+	Bg ^{a+}	3	0	0	2+		0	2+	
4	Ror	+	0	+	0	+	+	0	+	0	+	+	+	0	0	+	+	w	+	+	+	0	0	0	0	+	+		4	0	0	2+		0	2+	
5	r'r	0	+	+	0	+	0	0	+	0	+	0	+	0	+	0	+	+	+	+	0	+	+	0	+	+		5	0	0	2+		0	2+		
6	r''r	0	0	+	+	+	0	0	+	0	+	0	+	0	+	+	+	0	+	+	+	0	+	0	0	+	+	Bg ^{a+}	6	0	0	2+		0	2+	
7	rr	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	+	0	+	0	+	0	0	+	0	+	+		7	0	0	2+		0	2+	
8	rr	0	0	+	0	+	0	0	+	0	+	0	+	+	0	+	+	+	0	+	+	+	+	+	0	+	+		8	0	0	2+		0	2+	
9	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	+	w	0	+	+	0	+	+	+	0	+	0	+	0		9							
10	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	+	+	0	0	0	+	+	+	0	+	+	+	+		10							
11	rr	0	0	+	0	+	0	0	+	0	+	0	+	+	0	0	+	0	0	+	+	0	0	+	0	+	0		11							
12	r''r	0	0	+	+	+	0	0	+	0	+	0	+	0	+	0	+	0	+	0	+	+	+	+	+	+	0		12							
13	rr	0	0	+	0	+	0	0	+	0	+	0	+	+	0	+	0	0	+	+	+	0	+	+	0	+	+	Co ^{b+}	13							
14	rr	0	0	+	0	+	0	0	+	0	+	+	+	0	0	+	+	0	+	+	0	+	+	0	0	+	+	He+	14							
15	rr	0	0	+	0	+	+	0	+	0	+	0	+	+	0	+	0	0	0	w	+	0	0	+	0	+	+		15							
16	rr	0	0	+	0	+	0	0	+	0	+	0	+	0	0	+	0	0	0	+	0	+	0	+	0	+	0		16							
Patient																												AC								

Titration: R1R1 cell; AHG is IMMUCOR anti-IgG

Sample dilution	1	2	4	8	16	32	64	128	256	512	1024	2048	Titer
Reaction strength at AHG phase	2+	2+	2+	2+	1+	w+	vw+	0	0	0			32

Special testing; 4 drops serum to 1 drop saline-suspended RBCs

	IMMUCOR >IgG			Gamma >IgG (not sensitive to IgG4); untreated cells		
	Untreated	Ficin tx RBCs	AET tx RBCs	IS	37°, 30'	>IgG
SCI	2+	0	0	0	0	0
SCII	2+	0	0	0	0	0

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Additional rare frozen RBCs: cells 1 – 12, using Ortho anti-IgG, cells 13 - 15 using IMMUCOR anti-IgG (both sensitive to IgG4)

Cell	Rh	Rh system					Kell					Duffy		Kidd		Lewis		P	MNSs					Lutheran		Xg	Other Typings	Cell	LISS			
		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	IS	37	AHG
1		+	+	+	0	+	0						+	+	0	+	+	0		+		+	+	0			McC(a-b-c+d+)	1	0	0	2+	
2		0	0	+	0	+	0	+					+	+	+	+	0	0	0	+	0	+	+				Ge:-3	2	0	0	2+	
3		+	+	0	0	+	0						+	+	+	0	0	+	+	+	0	+	+				Ge:-1-2-3	3	0	0	2+	
4		0	0	+	0	+	0	+	0				+	+	+	+	0	0	0	+	+	+	+	0	0		Lu(a-b-)	4	0	0	2+	
5		+	+	+	0	+	0	+					0	0	0	+	+	0	+	+	0	0	+				McC(a-)	5	0	0	3+	
6		+	+	0	0	+	0						0	+	+	+				+	+	0	+				JMH -	6	0	0	0	2+
7		+																									O cord	7	0	0	w+	
8		+																									O cord	8	0	0	w+	
9		+																									O cord	9	0	0	w+	
10		+	+	+	0	+	0	+					+	0	0	+	+	0	+	+	+	+	0				JMH -	10	0	0	0	2+
11		+	+	0	0	+	0						+	0	+	+	0	+	+	+	0	+	+				JMH -	11	0	0	0	2+
12		+	+	0	0	+	0						+	+	+	+	0	+		0	+	+	+				Yt(a-)	12		0	1+	
13		+	0	+	+	0	0	+	+	0	+	+	+	+	+	+	+	0	+	+	+	+	+	0	+	+	Yt(a-)	13		0	1+	
14		+	+	+	0	+	0	+	0				+	+	0	+	0	+	+	+	+	0	+				Yt(a-)	14		0	w+	

Direct Antiglobulin Test

Manufacturer	Polyclonal AHG	Anti-IgG	Anti-C3
Gamma*	0	0	0
Ortho	vw+	vw+	
IMMUCOR		vw+	

*Not sensitive to IgG4

Questions

3. What is the identity of this antibody?

