

ABID CASE #17

Second Panel (different technologist, Gel CAT)

Lot #8RA185	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	+	+	+	+	+	0	+	C ^w	1	1+ ^w
2	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	+	0	0	+	+	+	+	0	+s	0	+	0	+			2	w+	
3	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	+	+	+	+	0	0	+	+	+	0	+s	0	+		3	1+	
4	Ror	+	0	0	+	+	+	0	+	0	+	0	+	0	+	+	+	0	0	0	0	+	+	0	+	0	+		4	vw+	
5	r ² r	0	+	0	+	+	0	0	+	0	+	0	+	+	+	+	0	+	0	+	0	+	+	+	+	0	+		5	vw+	
6	r ² r	0	0	+	+	+	0	0	+	0	+	0	+	0	+	+	0	+	0	+	0	+	+	+	+	0	+		6	0	
7	rr	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	+		8	vw+	
9	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	+	0	+	0	0	+	+	0	0	+	+	0	+		9	vw+	
10	rr	0	0	0	+	+	0	0	+	0	+	0	+	+	0	+	0	+	0	+	+	+	+	0	0	0	+		10	1+	
11	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	0	+	0	+	+	0	+	+	0	+	+	0	0	+		11	0	
Patient																													AC		

Question:

1. What antibody(ies) appear to be present? What are possible causes of the observed reactivity? What tests could you do to investigate these?

After considering the differential diagnosis of variable weak reactivity with most panel and screening RBCs (21 of 24 cells) the technologist chose to perform the following tests.

"Cold Antibody Screen"

	IS	RT, 30"	18°C	4°C
SCI	0	0	0	1+
SCII	0	0	0	1+
Oi*	0	0	0	1+
Patient (AC)	0	0	0	1+

Tube screen, ficin treated cells

	37°C	AHG
SCI	0	0 ^v
SCII	0	0 ^v
AC	0	0 ^v

Titer

Dilution	Neet	2:1	4:1	8:1	16:1	32:1
Gel reactions	w+	0	0	0	0	0

ABID CASE #17

"Tube method" panel with LISS and PEG enhancement

		Rh system						Kell						Duffy		Kidd		Lewis		P	MNSs					Lutheran		Xg	LISS tube				PEG
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	Le ^a	Le ^b	P1	M	N	S	s	Lu ^a	Lu ^b	Xg ^a		Cell	IS	37	AHG	AHG
1	R1wR1	+	+	0	0	+	0	+	+	0	+	0	+	0	+	+	+	0	+	+	0	+	0	+	0	+	+	C ^w	1	0	0	0 ^v	0 ^v
2	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	0	+	0	0	+	+	+	+	0	+	0	+	+		2	0	0	0 ^v	0 ^v	
3	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	0	+	+	+	0	+	0	0	+	+		3	0	0	0 ^v	0 ^v	
4	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	+	0	+	+	0	0	+	0	+	+	4	0	0	0 ^v	0 ^v	
5	RzR1	+	+	+	0	+	0	0	+	0	+	0	+	0	+	0	+	0	+	0	+	0	+	+	0	+	+	5	0	0	0 ^v	0 ^v	
6	RzR2	+	+	+	+	0	0	0	+	0	+	+	+	0	+	+	0	+	0	+	0	+	0	+	+	+	0	6	0	0	0 ^v	0 ^v	
7	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	+	0	+	+	0	+	+	+	0	+	0	+	0	7	0	0	0 ^v	0 ^v	
8	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	+	+	0	0	+	0	+	+	+	0	0	+	0	8	0	0	0 ^v	0 ^v	
9	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	0	+	0	+	0	+	+	0	0	+	0	+	+	9	0	0	0 ^v	0 ^v	
10	R2R2	+	0	+	+	0	0	+	0	0	+	0	+	+	+	+	0	0	+	+	+	+	+	+	+	+	+	10	0	0	0 ^v	0 ^v	
Patient																												AC					

Gel IAT with selected "rule-out" cells

		Rh system						Kell						Duffy		Kidd		Lewis		P	MNSs					Lutheran		Xg			
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	Le ^a	Le ^b	P1	M	N	S	s	Lu ^a	Lu ^b	Xg ^a		Cell	Gel	
1	R1wR1	+	+	0	0	+	0	0	+	0	+	0	+	+	0	0	+	+	0	+	+	0	+	0	+	0	+	+	C ^w	1	0
2	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	+	0	0	+	+	0	+	+	0	+	0	+	0	+	+		2	0
3	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	+	0	+	+	0	+	0	+	0	+	+		3	0
4	R1R1	+	+	0	0	+	0	+	+	0	+	0	+	0	+	0	+	+	0	+	+	0	+	0	+	0	+	+		4	0

Questions:

2. What do the "cold antibody screen" and titration study tell us? Does the antibody screen with enzyme (ficin) treated cells help us? How?

3. What does the PEG/tube and LISS/tube panel tell us?

ABID CASE #17

4. Why did the technologist perform the selected cell panel by the gel test? What does it tell us?

5. How would you use this donation?

At a second donation, 4 months after the first an extended phenotype was performed on the donor with the following results.

Patient antigen Phenotype (This was actually performed.)

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

Question:

6. Does knowing the donor's phenotype help us?