

ABID CASE #10

Repeat Plasma/Gel Panel

Lot #VRA242		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	
12	rr	0	0	0	+	+	0	+	+	0	+	0	+	+	+	0	+	+	0	0	+	+	+	+	+	+	0	+	C ^w	12	3+
13	rr	0	0	0	+	+	0	0	+	0	+	0	+	0	+	+	0	+	+	0	0	+	+	+	+	+s	0	+		13	3+
14	rr	0	0	0	+	+	0	0	+	0	+	/	+	0	+	+	0	0	0	0	0	+	0	+	0	0	+		14	0	
15	R2R2	+	0	+	+	0	0	0	+	0	+	/	+	+	+	0	+	+	0	+	+	0	+	0	0	0	+		15	0	
16	R2R2	+	0	+	+	0	0	0	+	0	+	/	+	+	0	+	+	0	0	+	+	+	+	+	+	+	0	+		16	0
17	R2R2	+	0	+	+	0	0	0	+	0	+	/	+	0	+	+	0	+	0	+	+	+	+	+	0	+	0	+		17	0
18	R1R1	+	+	0	0	+	0	+	+	0	+	/	+	0	+	+	0	+	0	+	0	+	0	+	+	0	+		18	1+	
19	R1R1	+	+	0	0	+	0	0	+	0	+	/	+	+	0	0	+	+	+	0	+	+	+	+	+	0	+		19	0	
20	RZR1	+	+	+	0	+	0	0	+	0	+	/	+	0	+	0	+	+	0	+	+	0	+	0	+	0	+		20	3+	
21	r'r	0	+	0	+	+	0	0	+	0	+	/	+	+	0	+	0	0	0	0	+	+	0	+	0	+s	0	+		21	2+
22	R1r	+	+	0	+	+	0	+	+	0	+	/	+	+	+	+	+	+	0	+	+	+	+	+	+	0	+		22	1+	
Patient																														AC	

Selected cell panel; saline/tube technique

Lot #RB492		Rh system						Kell						Duffy		Kidd		Xg	Lewis		MNSs				P	LutherAn		Other	2 drops raw plasma				
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	IS	37	AHG	
12	rr	0	0	0	+	+	0	+	+	0	+	0	+	+	0	+	+	+	0	+	0	+	+	+	+	0	0	+		12	0	0	0 ^v
15	R2R2	+	0	+	+	0	0	0	+	0	+	/	+	+	0	+	+	+	0	+	0	+	0	+	+	+	0	+		15	4+	2+	3+
17	R2R2	+	0	+	+	0	0	0	+	0	+	/	+	+	+	0	+	0	0	+	0	+	+	+	0	0	+		17	0	0	0 ^v	
18	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	+	0	+	+	0	+	0	+s	0	+		18	4+	2+	3+	
21	r'r	0	+	0	+	+	0	+	+	0	+	/	+	0	+	+	+	0	0	+	0	+	+	0	+	0	+		21	3+	0	1+	
22	R1r	+	+	0	+	+	0	+	+	0	+	/	+	+	+	+	0	+	0	+	0	+	0	+	0	0	+		22	0	0	0 ^v	
Patient																														AC	0	0	0 ^v

Selected cell; prewarmed technique

																											37	AHG				
15	R2R2	+	0	+	+	0	0	0	+	0	+	/	+	+	0	+	+	+	0	+	0	+	0	+	+	0	+		15		1+	1+

Antigen Phenotype

	Rh system				Kell				Duffy		Kidd		Lewis		MNSs				P				
	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	
Patient	+	0	0								+								0				
Pos control	3+	3+	3+								3+								2+				
Neg Control	0	0	0								0								0				

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Questions

1. What is the identity of this antibody(ies)?

2. Is any further workup needed to prove it? Comment on the sensitivity of the gel and saline/tube techniques in this case.

3. What is the probable source of the immunizing stimulus in this case?

4. Does this antibody cause hemolytic transfusion reactions (HTRs)?

5. Does this antibody cause hemolytic disease of the fetus and newborn?

6. How would we select compatible blood for this patient? What percentage of donors is expected to be compatible with this recipient?

7. What is the biochemical nature of the antigen? (Review the outline of the features of the relevant blood group system.)