

ABID CASE #4

1. What is the probable identity of this antibody? *Anti-c*
2. Is any further workup needed to prove it? If additional cells must be tested, select them from the following panel.

Anti-E and anti-N must be ruled out. A negative reaction with cell #5 will rule out anti-E on a single dose cell, the best that can generally be hoped for when there is anti-c present ($R^Z R^Z$ would be needed to rule it out on a double dose cell), and cells 2 and 4 can rule out anti-N. The patient also needs to be typed for c.

Lot #51877		Rh system						Kell						Duffy		Kidd		Lewis		P	MNSs					Lutheran		Xg	Other					
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	Gel				
1	R1wR1	+	+	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	+	+	+	Bg(a+)	2				
3	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	0	+	0	+	0	+	+	+	0	+	0	+	0	+	+		3				
4	R1R1	+	+	0	0	+	0	0	+	0	+	0	+	+	+	+	0	+	0	0	0	0	+	0	+	0	+	+		4				
5	RzR1	+	+	0	+	+	0	0	+	0	+	0	+	+	0	+	+	0	+	+	+	+	0	+	0	+	+	+		5				
6	RzR2	+	w	+	+	0	0	0	+	0	+	0	+	0	0	+	0	+	0	+	+	0	0	+	+	+	+	0	Co(b+)	6				
7	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	+	0	+	0	+	+	+	0	0	+	0	+	0		7					
8	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	0	0	+	0	+	0	+	+	0	0	+	0	+	+		8					
9	R2R2	+	0	+	+	0	0	0	+	0	+	0	+	+	+	0	+	0	+	+	+	+	+	0	0	+	+		9					
10	R1R2	+	+	+	+	+	0	0	+	0	+	0	+	+	0	+	0	0	+	+	0	+	0	+	+	+	+	Co(a-b+)	10					
11	r'r	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	+	0		12				
13	rr	0	0	+	0	+	0	+	+	0	+	0	+	+	0	+	+	+	0	+	+	+	+	+	+	+	+		13					
14	rr	0	0	+	0	+	0	0	+	0	+	0	+	+	+	+	+	0	+	+	0	+	0	+	0	+	+	Di(a+)	14					
15	rr	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	+	+	+	Co(b+)	16					
17	rr	0	0	+	0	+	0	+	+	0	+	0	+	+	+	+	+	0	0	+	+	+	0	+	+	+	+		17					
18	rr	0	0	+	0	+	0	0	+	0	+	0	+	0	+	0	+	0	+	+	0	+	0	0	0	+	+		18					
19	rr	0	0	+	0	+	0	0	+	0	+	0	+	+	+	+	+	0	+	+	+	+	+	0	+	+	+		19					
20	Ror	+	0	+	0	+	+	0	+	0	+	0	+	0	0	+	+	0	0	+	+	+	0	+	0	+	+		20					
Patient																												AC						

3. What is the probable source of the immunizing stimulus in this case?
Her surgical history suggests that she has been transfused.
4. Does this antibody cause hemolytic transfusion reactions? *Yes, severe.*
5. Does this antibody cause hemolytic disease of the newborn? *It causes HDN which is similar in severity to that of anti-D.*
6. How would we select compatible blood in this case? What percentage of donors are expected to be compatible with this recipient?

Group A or O, Rh positive RBCs, c negative, compatible by an antiglobulin crossmatch. Twenty % of Caucasian donors are c negative.