Exercise 11: Blood Analysis: Activity 4: Blood Typing Lab Report

Pre-lab Quiz Results
You scored 100% by answering 4 out of 4 questions correctly.

1. Red blood cell membranes have
You correctly answered: c. agglutinogens that specify that individual's blood type.

2. ABO and Rh antigens
You correctly answered: d. All of these answers are correct.

3. Which of the following statements about blood types is correct?
You correctly answered: d. A person with type O blood has two recessive alleles and has neither the type A nor type B antigen.

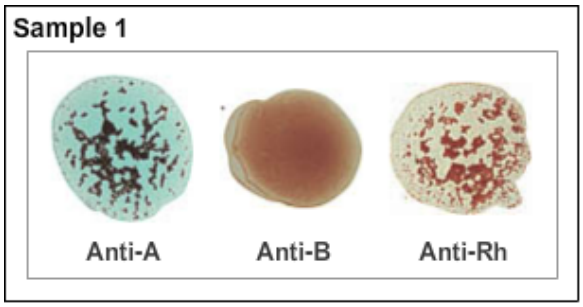
4. Antibodies to the A and B antigens are
You correctly answered: a. found preformed in the blood plasma.

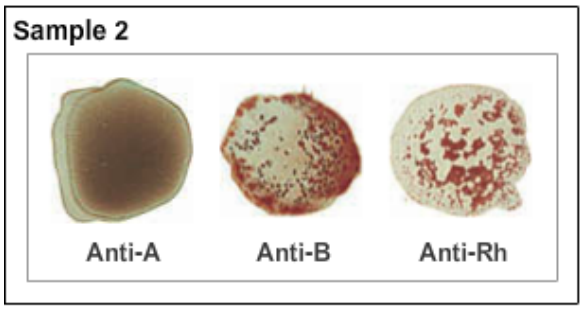
Experiment Results
Predict Question:
Predict Question: If the patient's blood type is AB- , what would be the appearance of the A, B, and Rh samples?
Your answer : a. A, clumped; B, unclumped; Rh, clumped

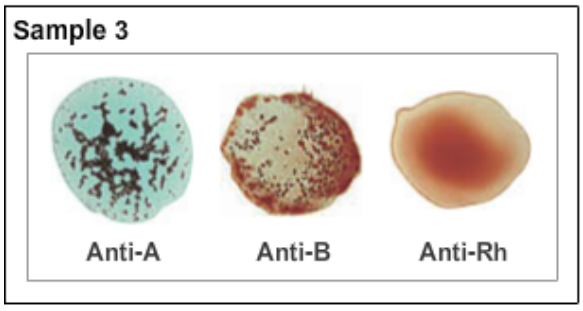
Stop & Think Questions:
Why are individuals with the AB+ blood type known as universal recipients for blood transfusions?
You correctly answered: c. They have both A and B antigens on the surface of their RBCs, and their blood serum does not contain antibodies against A, B, or Rh antigens.

Experiment Data:

Blood sample	Agglutination with Anti-A Serum	Agglutination with Anti-B Serum	Agglutination with Anti-Rh Serum	Blood Type
1	positive	negative	positive	A+
2	negative	positive	positive	B+
3	positive	positive	negative	AB-
4	negative	negative	negative	O-
5	positive	positive	positive	AB+
6	negative	positive	negative	B-







Post-lab Quiz Results
You scored 100% by answering 4 out of 4 questions correctly.

1. To determine an individual's blood type, drops of the blood sample are mixed
You correctly answered: a. separately with antiserum containing antibodies that recognize either type A antigens, type B antigens, or Rh antigens.

2. Agglutination
You correctly answered: d. All of these answers are correct.

3. Antigens
You correctly answered: b. are present on all cells.

4. ABO and Rh agglutinogens
You correctly answered: c. cause the most vigorous and potentially fatal transfusion reactions.

Review Sheet Results

1. How did the appearance of the A, B, and Rh samples for the patient with AB- blood type compare with your prediction?

Your answer:

A was clumped, B was clumped, but Rh was not clumped. This was not like my prediction, because I was confused about the samples.

2. Which blood sample contained the rarest blood type?

Your answer:

AB- is the rarest blood type and it was found in sample 3.

3. Which blood sample contained the universal donor?

Your answer:

Sample 4 contained the universal donor, type O-.

4. Which blood sample contained the universal recipient?

Your answer:

Sample number 5 contained the universal recipent, AB+.

5. Which blood sample did not agglutinate with any of the antibodies tested? Why?

Your answer:

Sample 4 did not agglutinate with any of the antibodies that was tested during this experiment. The reason is that none of the antigens were present.

6. What antibodies would be found in the plasma of blood sample 1?

Your answer:

In the plasma of blood sample 1, anti-B antibody was found.

7. When transfusing an individual with blood that is compatible but not the same type, it is important to separate packed cells from the plasma and administer only the packed cells. Why do you think this is done? (Hint: think about what is *in plasma* versus what is *on RBCs*.)

Your answer:

The reason why it is important to separate packed cells from plasma and only administer them is because the plasma contains the antobodies that can react with the recipients antigens on RBCs.

8. List the blood samples in this activity that represent people who could donate blood to a person with type B+ blood.

Your answer:

The blood samples which can be used in donating blood to a person with type B+ blood is the following; B+ (sample 2), O- (sample 4), B- (sample 6).