**Procedure**

1. Label one plate Anti-A and one plate Anti-B.
2. Place 2 to 3 drops of Mr. Smith’s blood in Well A on both plates.
3. Place 2 to 3 drops of Mr. Green’s blood in Well B on both plates.
4. Place 2 to 3 drops of Ms. Brown’s blood in Well Rh on both plates.

A

Rh

B

Mr. Smith

Mr. Green

Ms. Brown

**Anti-B**

A

Rh

B

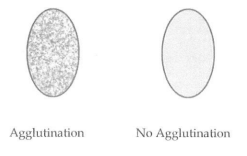
Mr. Smith

Mr. Green

Ms. Brown

**Anti-A**

1. Place 3 to 4 drops of simulated anti-A serum in each well on the anti-A plate.
2. Place 3 to 4 drops of simulated anti –B serum in each plate on the anti-B plate.
3. Obtain 6 toothpicks. Stir each well with a clean toothpick. To avoid splattering the simulated blood, do not press too hard on the plate.
4. Observe each slide and record your observations in Table 1 of the analysis section. To confirm agglutination (clumping), try reading text through the mixed samples. If you cannot read the text, assume you have a positive agglutination reaction. If the well is positive, record a + in Table 1. If the well is negative (no clumping), record a – in Table 1. Based on the agglutination, determine and record the blood type of each slide.



(clumping + ) (no clumping - )

1. Clean up and dispose of materials according to your teacher’s instructions.

**Analysis Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Table 1

|  |  |  |
| --- | --- | --- |
| Anti-A | Anti-B | Blood Type |
| Mr. Smith  (A well) |  |  |  |
| Mr. Green  (B well) |  |  |  |
| Ms. Brown  (Rh well) |  |  |  |

1. Using only the Blood Type, could Mr. Smith be Mr. Green’s son? Explain.
2. Using only the Blood Type, could Ms. Brown be Mr. Green’s daughter? Explain.
3. Could a man with type O blood be the father of a child with type AB blood? Explain.
4. Could a man with type A blood and a woman with type B blood have a child with type O blood? Explain.
5. If a person has type AB blood, what two alleles does he/she have? Why does the person have type AB blood and not just type A or just type B?
6. a. How many alleles are possible for ABO blood typing?

b. What are they?

c. How many alleles does each person have for blood type?

d. What type of inheritance does ABO blood typing have?