Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Blood Typing with Saliva**

80% of the general population are “secretors”, meaning that they secrete blood group antigens in body fluids (saliva, tears, gastric juices, etc.). Thus, saliva can be used to determine your blood type.

The ABO blood group system includes 4 blood types: A, B, AB, & O.

* Type A blood has the type A antigen
* Type B blood has the type B antigen
* Type AB blood has both type A and type B antigens
* Type O blood has neither type A nor type B antigens
* ALL types have the H antigen

Blood typing will be performed using hemagglutination inhibition. Any antigens that are present in the sample will PREVENT clumping of red blood cells in that tube. Thus, clumping is a negative result for that antigen. If ALL of your tubes show clumping, you are a NON-SECRETOR.

**Add tube components IN ORDER FROM LEFT TO RIGHT, as shown in the table below.**

**Allow tubes to sit UNDISTURBED for a period of at least FIVE MINUTES before viewing.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Tube | Saliva | Saline | Solution | RBCells | Clumping? | Interpretation |
| A | 4 drops | 4 drops | 1 drop anti-A serum | 1 drop A cells |  |  |
| B | 4 drops | 4 drops | 1 drop anti-B serum | 1 drop B cells |  |
| O | 4 drops | 4 drops | 1 drop H Lectin | 1 drop O cells |  |

*DISCLAIMER: Information from this lab should not be used for medical purposes. Blood type for medical purposes should be determined using a blood typing test that directly tests the blood.*

Analysis Questions

1. What were you able to conclude from the results of your testing?
2. Were there any non-secretors in class? How many would you expect in a class of your size?
3. What is the purpose of the “O” tube in this experiment?
4. Is blood type individual or class evidence? Explain.