GENETIC LAB REPORT

Human Blood Types



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# ABSTRACT

Humans have four different blood types which are A, B, AB, and O. Blood types are determined by antigen located in the person blood cell. Type A has an antigen that would accept only Type A and O and the same for the other blood type. People with an AB blood type expressing both A and B antigens because they are codominant. People with AB blood are considered the universal recipient. People with Type O blood do not have any antigens on their blood cell which allow them to be a universal donor. People with a specific blood types will have antibodies in their blood cell that will reject different blood types, like A would reject B. Also, when talking about blood type you would see + or – following the blood type, which tell if the blood is positive or negative for a second antigen called Rhesus which is controlled by different gene. In this lab, I tried to determine the blood type by place a drop of blood into each of the three wells in your dish. Add drop of Anti A in well labeled ‘A.’ Add drop of Anti B in well labeled ‘B.’ Add drop of Anti D in well labeled ‘Rh.’ Use the appropriately colored mixing stick to mix the blood sample with the serum. Look to determine if clumping occur. If clumping occurs when I know that is the blood type. For example, if I use a random sample and there is only clumping for Anti-A, then it is safe to say the person has blood type A.



# MATERIALS

In this lab I used Anti A, Anti B, and Anti Rh serum. Also, a three wells dish with sticks of different color, in this lab I used yellow, blue, and white sticks. This lab also need three synthetic blood sample.

# PROCEDURE

Place a drop of blood into each of the three wells in your dish. Add drop of Anti A in well labeled ‘A.’ Add drop of Anti B in well labeled ‘B.’ Add drop of Anti D in well labeled ‘Rh.’ Use the appropriately colored mixing stick to mix the blood sample with the serum. Look to determine if clumping occur . Fill in the table below with a ‘yes’ or ‘no’ depending on whether or not clumping occurred. A positive reaction will indicate the blood type.

# DATA

Test 1

|  |  |  |  |
| --- | --- | --- | --- |
|  | Sample #5 | Sample #4 | Sample #8 |
| Anti-A | Weak Clump | Weak Clump | No |
| Anti-B | Weak Clumping | No | No |
| Anti-Rh | Weak | No | No |
| Blood type | AB+ | A- | O- |

Test 2

|  |  |  |  |
| --- | --- | --- | --- |
|  | Sample #1 | Sample #2 | Sample #6 |
| Anti-A | Clump | Clump | Clump |
| Anti-B | No | No | No |
| Anti-Rh | Clump | No | No |
| Blood type | A+ | A- | A- |

#

# RESULTS

Island 1

|  |  |  |
| --- | --- | --- |
| Blood Group | Total for Group | Blood Group Frequency |
| A+ | 3 | .18 |
| A- | 5 | .29 |
| B+ | 3 | .18 |
| B- | 0 | 0 |
| AB+ | 1 | .06 |
| AB- | 0 | 0 |
| O+ | 2 | .12 |
| O- | 3 | .18 |

Island 2

|  |  |  |
| --- | --- | --- |
| Blood Group | Total for Group | Blood Group Frequency |
| A+ | 2 | .12 |
| A- | 5 | .29 |
| B+ | 2 | .12 |
| B- | 3 | .18 |
| AB+ | 1 | .06 |
| AB- | 0 | 0 |
| O+ | 2 | .12 |
| O- | 2 | .12 |



Island 1 and 2 are the total result of the class, and the shows how the class came to those calculation.

# CONCLUSION

In this lab, I tried to determined the blood type by place a drop of blood into each of the three wells in your dish. Place a drop of blood into each of the three wells in your dish. Add drop of Anti A in well labeled ‘A.’ Add drop of Anti B in well labeled ‘B.’ Add drop of Anti D in well labeled ‘Rh.’ Use the appropriately colored mixing stick to mix the blood sample with the serum. Look to determine if clumping occur . Fill in the table below with a ‘yes’ or ‘no’ depending on whether or not clumping occurred. A positive reaction will indicate the blood type. If clumping occurs when I know that is the blood type. For example, if I use a random sample and there is only clumping for Anti-A, then it is safe to say the person has blood type A-. In the class, there was some disagreements on blood typing probably due to the wells not being cleaned properly. If I was able to do this lab again I would wash the three well dish so there would be any confession.