# Exp.19 Qualitative Analysis of Nucleic Acids

Introduction:

The precipitated RNP from exp.18 is underwent acid hydrolysis for qualitative tests, to exemplify its structural features.

Reagents:

1. 2.5% Ammonium Molybdate
2. Orcinol reagent
3. Ammonium water
4. 0.1M Silver nitrate
5. Sulfuric acid

Procedures:

Take out some RNP precipitate from exp.18 in a test tube. Add 5 ml of water and 1ml of conc. sulfuric acid slowly. Mix well. Heat the solution for ~10 minutes in a boiling water bath (*hydrolyzed RNP solution*).

1. Test for ribose:

Measure 0.5 ml of hydrolyzed RNP solution in a test tube, and then add 0.5 ml of Orcinol reagent. Mix well. Heat it for 5-10 minutes in a boiling water bath. A dark green coloration is obtained as a positive result.

2. Test for phosphate:

Measure 0.5 ml of hydrolyzed RNP solution in a test tube, and then add 1 ml of 2.5% ammonium molybdate. Mix well. Warm the mixture gently at 60~70℃ water bath for 5-10 minutes. Do not boil. A yellow crystalline precipitate is obtained as a positive result.

3. Test for purines (Murexide Test):

Measure 0.5 ml of hydrolyzed RNP solution in a test tube, and then add few drops of ammonium water and 0.5 ml of $AgNO_3$. Mix well. Heat it for 5-10 minutes in a boiling water bath. A white or reddish brown residue is obtained as a positive result.

Results：

1. Record your observations.

Discussions：