

Chemical Testing of DNA Worksheet

Data Table

Test	Unknown	Control
Deoxyribose test		
Phosphate test		
Purine test		

Post-Lab Questions

- In Part I, the rehydrated banana chips were broken into small pieces and the mixture was then filtered to remove the solids. Why not leave the banana whole and proceed with the remainder of the procedure?
- In Part II, the nuclear material was tested for phosphate, purines, and deoxyribose. Did the results of these chemical tests conclusively determine if the substance was DNA? Explain why or why not.
- What other components of DNA could be tested to determine its composition?
- The phosphate backbone of DNA carries a negative charge causing the entire macromolecule to be negative. Histones interact with DNA to help coil and stabilize the DNA strand. What charge do the histones carry? How did you determine your answer?
- The procedure used in Part I is not specific to DNA. RNA may also be retrieved using this protocol. In order to test the nuclear material for RNA what component of RNA would need to be tested?