

Chapter II: Genetic Material 1.a. Constituents of DNA This molecule consists of simple molecules such as phosphoric acid (PO_4H_3), 5- carbon monosaccharide's sugar (pentoses) and nitrogenous bases (purines or pyrimidines); ?In eukaryotes, DNA is essentially stored in the nucleus of cells, with a DNA fraction also present in mitochondria as well as, in plants, in chloroplasts. Deoxyribose ($\text{C}_5\text{H}_{10}\text{O}_4$), or more exactly 2-deoxyribose, is a pentose (aldopentose) derived from ribose by substitution of hydrogen by hydroxyl group in the position 2. There are two main types of nucleic acid: ribonucleic acid (RNA) and .deoxyribonucleic acid (DNA). 1. 1