

LIST OF BIOCHEMICALS TO KNOW, UNDERSTAND, AND BE ABLE TO USE

[After these compounds are presented in class, you must be able to draw each structure, recognize the compound, recognize the functional groups, recognize the class of compound to which each belongs, know what reactions these compounds will participate in, and know how these compounds are used in living organisms.]

1. **Amino acids**

Glycine, Alanine, Tryptophan, Methionine, N-formyl Methionine, Proline

2. **Monosaccharides**

β -D-Glucose, α -D-Glucose, β -D-Galactose, Ribose, Deoxyribose, N-Acetyl Glucosamine, N-Acetyl Muramic acid, Glycerol

3. **Fatty acids**

Palmitic acid, Oleic acid

4. **Mononucleotides**

Adenosine triphosphate, Guanosine triphosphate, Cytidine triphosphate, Uridine triphosphate,

Deoxyadenosine triphosphate, Deoxyguanosine triphosphate, Deoxycytidine triphosphate, Deoxythymidine triphosphate (called simply Thymidine triphosphate)

Dideoxyadenosine triphosphate, Dideoxyguanosine triphosphate, Dideoxycytidine triphosphate, Dideoxythymidine triphosphate

5. **Others**

Acetic acid (acetate), ethanol, Glycerol phosphate, Pyruvic acid (pyruvate), Lactic acid (lactate), Lactose [also known as β -D-galactosyl-(1-4)- α -D-Glucose], Azidothymidine

6. **Special category**

Phosphoric acid and its salts, Sulfuric acid and its salts, and Water are not organic compounds but are important in many biochemical reactions. They are also assigned.