

Lipids

Lipids are heterogeneous organic substances that are soluble in non-polar organic solvents such as benzene, ether, chloroform, but they are insoluble in water. The functions of lipids are:

- 1- Storing energy (A form of energy stock) .
- 2- Acting as structural components of cell membranes .

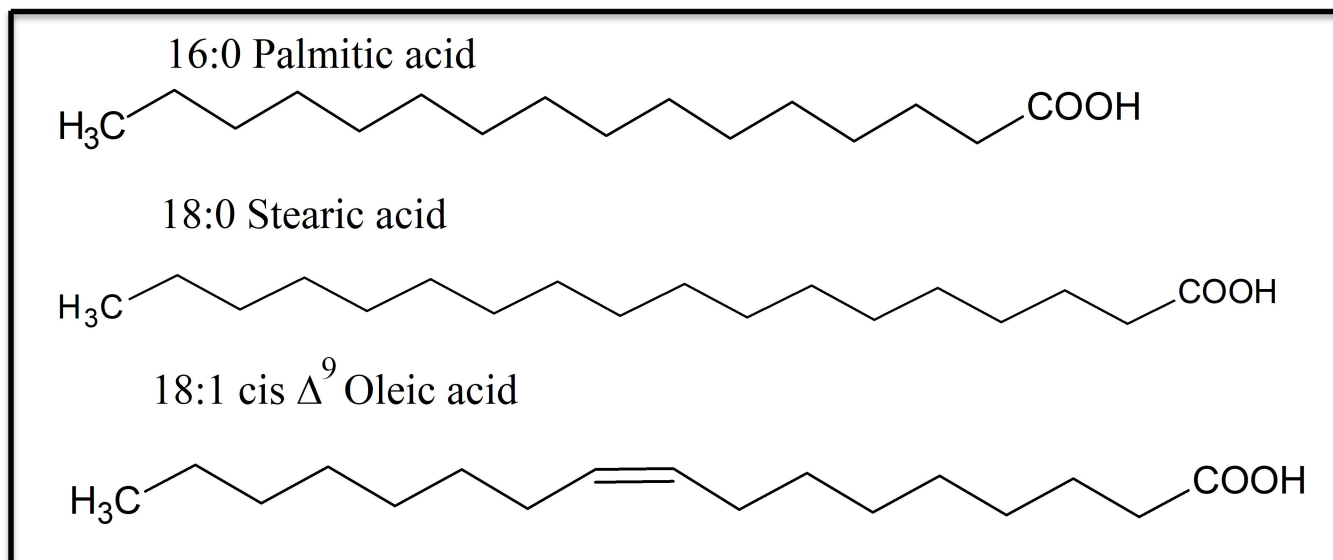
There are different types of lipids contain non-polar structures similar to hydrocarbons, which are given an oily or waxy state insoluble in water.

Lipids are divided by chemical properties into types:

- 1- **Simple lipids:** contains fats, oils, and waxes.
- 2- **Compound lipids:** contains phospholipids, glycolipids, sphingolipids.
- 3- **Derivative lipids:** contains cholesterol(Steroids) and fat-soluble vitamins.

fatty acids :

A fatty acid is a carboxylic acid with a long aliphatic chain, which is either saturated or unsaturated. They are principal building blocks of simple and complex lipids. Fatty acids that have carbon-carbon double bonds are known as unsaturated, while fatty acids without double bonds are known as saturated. Most naturally occurring fatty acids have an unbranched chain of an even number of carbon atoms from 4 to 28.



Qualitative test of amino acids

