NAME: ESELE RUTH CLINTON

DEPARTMENT: MEDICAL LABORATORY SCIENCE

MATRIC NUMBER: 18/MHS06/025

QUESTION:

State four importance of cholesterol

Differences between glosbosides and ganglosides

Methylated form of phosphatidyl ethanol amin is also known as?

Which ring of cholesterol molecule contains a double bond?

Three properties of phosphoglycerides

Differences between triacylglycerol and phosphoglyceride state examples with schematic structures.

IMPORTANCE OF CHOLESTEROL

1. Cholesterol builds the structure of cell membrane
2. Helps in the metabolism efficiently e.g cholesterol is essential for the production of Vit D.
3. It produces bile acids which help in the digestion of fat and absorption of nutrients.
4. Responsible for the making of hormones like oestrogen, testosterone and adrenal hormone.

DIFFERENCES BETWEEN GLOBOSIDES AND GANGLOSIDES

ganglioside is a molecule composed of glyospingolipid with one or more sialic acids linked on the sugar chain WHILE a globoside has more than one sugar as the side chain of ceramide and is linked to the spingolipid by glycosidic bond. SAn acetylated derivative of the carbohydrate sialic acid makes the head of ganglioside anionic at pH 7 which is the major difference between it and globosides

3. The other name for methylated phosphatidylethanolamine is 1,2-diacyl-sn-glycero-3-phosphoethanolamine.

4. The **double** **bond** in the second (B) ring in **cholesterol** has no cis-trans isomerism because the ring shape and inter-atomic **bond** lengths forces the carbon configuration to be the only one that can physically.

5. PROPERTIES OF PHOSPHOGLYCERIDE

1. they have both hydrophilic and hydrophobic parts(amphilic).

2. three carbon backbone of glycerol

3. two long chain fatty acids attached to hydroxyl group on carbon 1 and 2

6.

|  |  |
| --- | --- |
| TRIAGLYCERIDE | PHOSPHOGLYCERIDE |
| They have glycerol and three fatty acid which makes them fat | They have glycerol, two fatty acids and phosphorus and they are not fat |
| Not essential for the formation of lipid by layers | Essential for the formation of lipid by layers |
| Doesn’t maintain cell membrane structure efficiently | Maintains cell membrane structure |
| Fat cells store triaglycerides | This breaks down fat in the body |