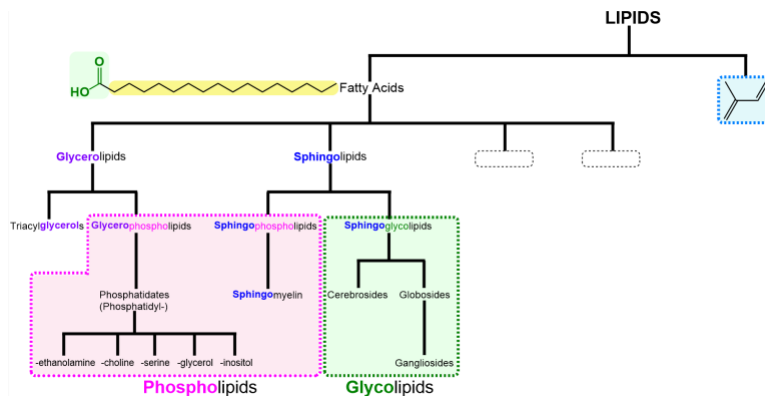


CONCEPT: SPHINGOLIPID RECAP



Reviewing Classes of Sphingolipids

- Sphingolipids are _____ according to their *variable head group* (-X).
 - Different *variable head groups* dictate the structure & _____ of the sphingolipid.
 - Fatty acid chain *length* & *degree of saturation* can also _____ among molecules in each class.

Sphingolipid Class	Variable Head Group (-X)
Ceramide	Protonated $\text{H}-\text{O}-$
Sphingomyelin	Phosphocholine
Cerebroside (ex. Glucosylcerebroside)	Glucose
Ganglioside	Complex Oligosaccharide
<div>Sphingophospholipids</div> <div>Sphingoglycolipids</div>	

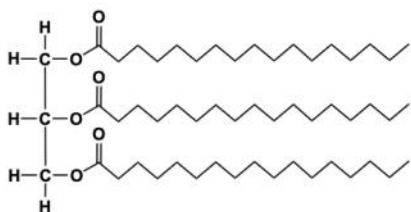
CONCEPT: SPHINGOLIPID RECAP

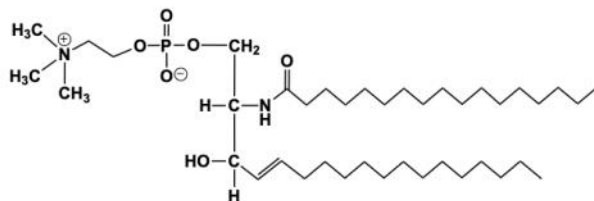
PRACTICE: Which of the following is TRUE of sphingolipids?

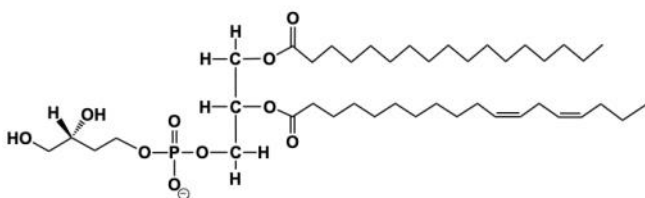
- a) They always contain glycerol and fatty acids.
- b) They may be charged, but are never amphipathic.
- c) Phosphatidylcholine is a typical sphingolipid.
- d) They contain only one esterified variable fatty acid.
- e) Cerebrosides, globosides and gangliosides are sphingolipids.

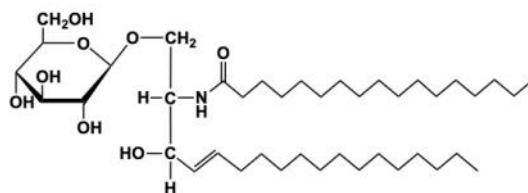
EXAMPLE: Appropriately match each of the following six lipid molecules with one of the listed types of lipids:

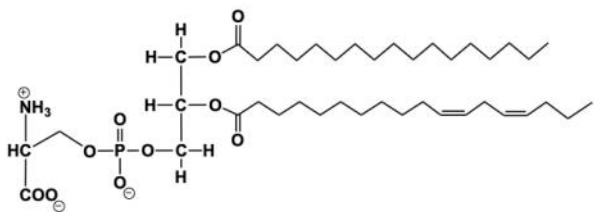
Cerebroside, Phosphatidylserine, Triacylglycerol, Sphingomyelin, Linoleate, Phosphatidylglycerol.













CONCEPT: SPHINGOLIPID RECAP

PRACTICE: Match the following lipid types with the correct description.

- | | |
|-------------------------------|--|
| a) Fatty acid. _____ | 1. Membrane lipids with a glycerol backbone. |
| b) Triacylglycerol. _____ | 2. Phospholipid especially common in nerve cells. |
| c) Phospholipid. _____ | 3. One of the simplest forms of a glycolipid. |
| d) Sphingosine. _____ | 4. Lipids covalently attached to carbohydrate groups. |
| e) Glycerophospholipid. _____ | 5. Chains of hydrogen-bearing carbon atoms with a carboxylic acid. |
| f) Sphingomyelin. _____ | 6. Complex glycolipids with a sialic acid residue. |
| g) Glycolipid. _____ | 7. A complex amino alcohol backbone for membrane lipids. |
| h) Cerebroside. _____ | 8. Major class of membrane lipids. |
| i) Ganglioside. _____ | 9. Long-term storage form of fatty acids. |