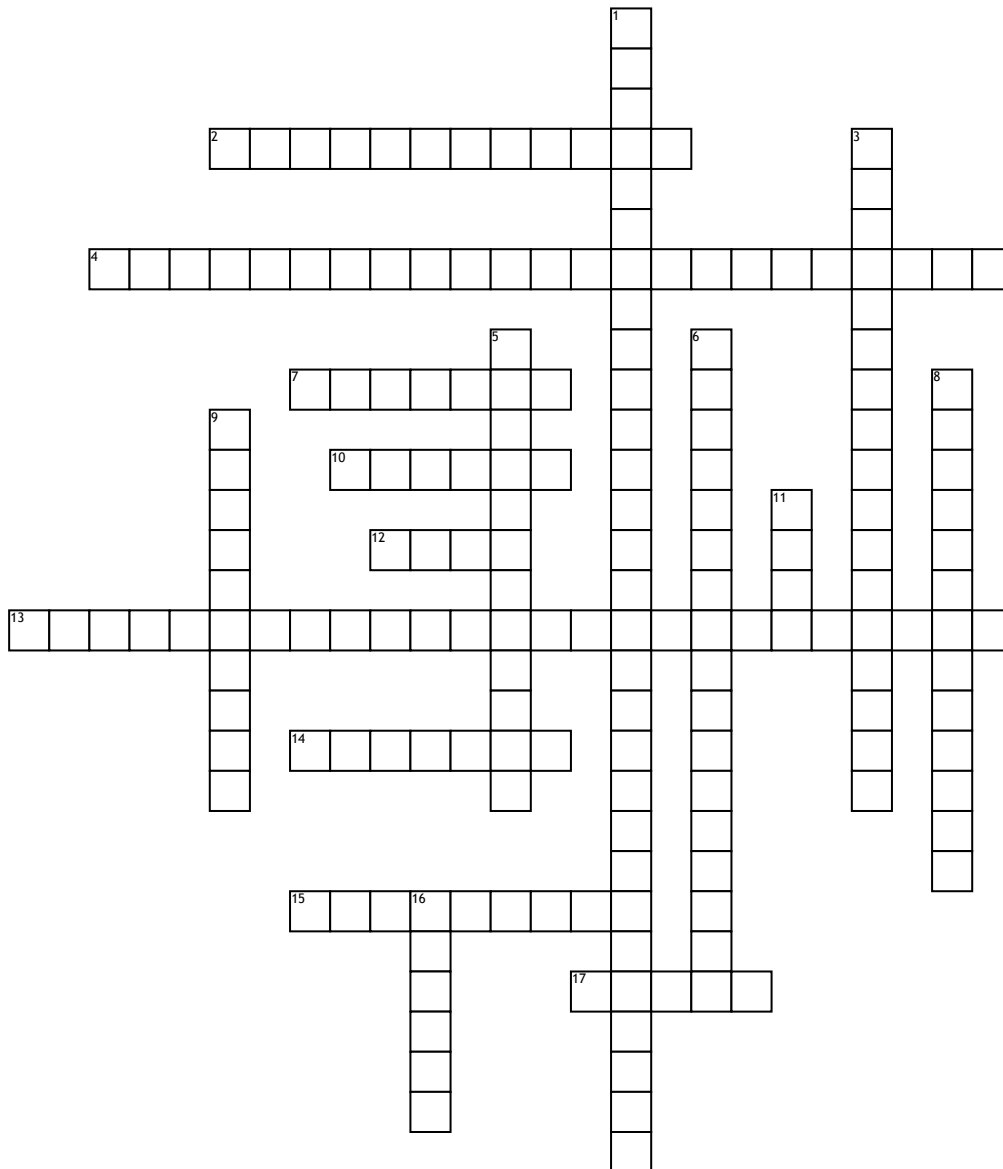


Fatty Acid Entry Into Mitochondria & Beta-Oxidation



Across

2. _____ are formed as a result of the digestion of lipids and are produced by the intestinal cells from the absorbed fatty acids in our food before being synthesized to TAGs.
4. A fatty acid transporter who's abbreviation is (FABP)
7. Fatty acids are only used during _____ activities since the TCA cycle and oxidative phosphorylation are involved
10. The number of cycles in beta oxidation depends on how many _____ atoms are present.
12. After one cycle of beta oxidation a FADH₂ and a _____ are formed
13. _____ are membrane proteins that facilitate the uptake of fatty acids by cells. Also known as (FATP)

14. _____ molecules are proteins and have the capacity to carry up to ten fatty acid molecules each.
15. The process whereby triglycerides are broken down to glycerol and fatty acids.
17. A 16-carbon fatty acid would undergo _____ cycles, because the last cycle results in the formation of two acetyl-CoA from a four-carbon fatty acyl-CoA

Down

1. _____ transports the acylcarnitine molecule across the mitochondrial membrane to the inner surface.
3. The synthesis of fatty acids from acetyl-CoA and malonyl-CoA is carried out in the cytoplasm by a large complex enzyme known as?

5. Beta oxidation occurs in the cytosol and _____?
6. _____ breaks down triglycerides in the blood to release the fatty acids and then transports them into the cell for storage. Also known as (LPL)
8. This process results in the formation of a series of acetyl-CoAs, which then enter the TCA cycle.
9. Once inside the cytoplasm of the muscle cell, _____ are bound to another fatty acid binding protein, by which they are transported to the mitochondria.
11. There are _____ reactions in each cycle of beta oxidation
16. Fatty acids consist of carbon, hydrogen, and _____ only