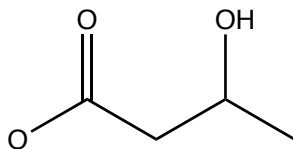


NAME: _____

Quiz 21

Given β -hydroxybutarate:



1. Estimate the number of redox steps by counting C-C and C-H bonds.
2. Convert the β -hydroxyl group to a carbonyl (in this case a ketone).
 - a. How many total C-C and C-H bonds?
 - b. Name the enzyme that catalyzes this reaction.
3. 3-ketoacyl-CoA transferase moves the CoA cofactor from succinyl-CoA to form a thioester out of the carboxylic acid of C1. This enzyme is expressed in tissues that can utilize ketone bodies. The liver and fat cells generally doesn't express this enzyme.
4. The product is broken into two acetyl-CoA. Name the enzyme that catalyzes this reaction.