Title page

Cellular fermentation

Cellular fermentation is a process in which glucose releases energy even in absence of oxygen. Yeast cells facilitate fermentation and normal takes place in bacteria and muscle cells. The process of fermentation is required in creation of bread and alcohol. In this process cellular respiration is used for metabolizing glucose. Pyruvic acid is also used for metabolism of glucose even when oxygen is deficient or missing. The process suggests conversion of pyruvic acid to acetaldehyde which is then transformed to to ethyl alcohol. The process of glycolysis produce two molecules of glucose. Yeasts can also be used in the process of fermentation because they contain enzymes which are capable of converting pyruvic acid to ethyl alcohol. This process involve removal of electrons and hydrogen ions from NADH. This results in keeping two ATP molecules alive. Alcohol kills the yeast when ethyl alcohol reaches at least 15 percent. Yeast is commonly used in the production of bread and alcohol. Carbon dioxide is removed during the Krebs cycle which causes the bread to rise (Brice, Cubillos and Dequin).

Two common types are lactic acid and alcoholic fermentation. In lactic acid frère mentation aerobic respiration leads to glycolysis. Lactate is an enzyme which dehydrogenase reaction for starting glycolysis and leads to the formation of lactate. In alcoholic fermentation yeast and sugar combines to generate energy that becomes visible as bubbles in aerobic and anaerobic exercises. Removal of carbon dioxide is leads to formation of acetaldehyde that further leads to formation of ethanol. Lactic acid generated through lactate which is then accumulated in the muscle. Ethyl alcohol fermentation is different from lactic acid fermentation. Lungs keep oxygen according to the demand of the body during exercise when most of the energy is required.

Work Cited

Brice, Claire, et al. "Adaptability of the Saccharomyces cerevisiae yeasts to wine fermentation conditions relies on their strong ability to consume nitrogen ." PlosOne (2018).