Chapter 16 – The Citric Acid Cycle

16.1 Production of Acetyl-CoA

The following sub-sections are important:

* The Introduction
* Pyruvate is Oxidized to Acetyl-CoA and CO2
* The Pyruvate Dehydrogenase Complex Employs Five Coenzymes
* The Pyruvate Dehydrogenase Complex Consists of Three Distinct Enzymes
* The Substrate Channeling, Intermediates Never Leave the Enzyme Surface

16.2 Reactions of the Citric Acid Cycle

The following sub-sections are important:

* The Introduction
* The Sequence of Reactions in the Citric Acid Cycle Makes Chemical Sense
* The Citric Acid Cycle Had Eight Steps
* The Energy of Oxidation in the Cycle is Efficiently Conserved
* Citric Acid Cycle Components are Important Biosynthetic Intermediates
* Anaplerotic Reactions Replenish Citric Acid Cycle Intermediates
* Biotin in Pyruvate Carboxylase Carries CO2 Groups

16.3 Regulation of the Citric Acid Cycle

The following sub-sections are important:

* The Introduction
* Production of Acetyl-Coa by the Pyruvate Dehydrogenase Complex is Regulated by Allosteric and Covalent Mechanisms
* The Citric Acid Cycle is Regulated at its Three Exergonic Steps