Class Transferases II EC 59 in the Springer Handbook of Enzymes 29: A Comprehensive Guide to Understanding Enzymatic Reactions

Enzymes are fascinating biological catalysts that play a crucial role in various physiological processes. One such class of enzymes is the transferases, which catalyze the transfer of a functional group from one molecule to another. In this article, we will explore Class Transferases II EC 59, a comprehensive section in the Springer Handbook of Enzymes 29, which provides a comprehensive guide to understanding enzymatic reactions involving transferases.

Understanding Class Transferases II EC 59

Class Transferases II EC 59 in the Springer Handbook of Enzymes 29 is a dedicated section that focuses on a specific subgroup of transferases. This section provides detailed information about the classification, properties, and mechanisms of action of transferases within this class. It offers insights into the diverse enzymatic reactions mediated by these transferases and their significance in various biological processes.

The Springer Handbook of Enzymes 29 is a valuable resource for researchers, scientists, and students interested in the field of enzymology. It comprises indepth information on a wide range of enzymes, including detailed descriptions of their structure, function, and catalytic mechanisms. Within this comprehensive handbook, Class Transferases II EC 59 stands out as an essential section for those exploring the world of transferase enzymes.

Class 2 Transferases II: EC 2.1.2.1 - 2.3.1.59 (Springer Handbook of Enzymes 29)





The Importance of Enzymatic Reactions Involving Transferases

Enzymatic reactions involving transferases are of profound importance in many biological processes. These reactions play a crucial role in the metabolism of various biomolecules, such as carbohydrates, lipids, and nucleic acids. By catalyzing the transfer of functional groups, transferases regulate the synthesis, breakdown, and modification of these essential molecules.

For example, the transferases involved in carbohydrate metabolism facilitate the interconversion of different sugar molecules, allowing organisms to produce energy or store excess sugars as glycogen. Similarly, transferases involved in lipid metabolism play a vital role in the synthesis of complex lipids, such as phospholipids and triglycerides, which are crucial components of cell membranes and energy storage molecules.

Furthermore, transferases participating in nucleic acid metabolism are involved in various processes, including DNA repair, DNA replication, and gene expression. These enzymes catalyze the transfer of methyl, acetyl, or phosphate groups onto nucleic acids, thereby influencing their structure and function.

Exploring Class Transferases II EC 59 in Detail

Class Transferases II EC 59 in the Springer Handbook of Enzymes 29 provides a detailed overview of the transferases included within this classification. It offers information about their structures, catalytic mechanisms, substrates, and cofactor requirements. Additionally, this section explores the physiological implications and potential applications of these transferases in various fields, such as medicine, biotechnology, and pharmaceuticals.

The description of each individual transferase within Class Transferases II EC 59 is accompanied by relevant long descriptive keywords for alt attributes. These keywords enhance accessibility and provide visually impaired readers with detailed descriptions of the associated images or figures. This inclusive approach ensures that the content can be understood and appreciated by a wider audience, irrespective of their visual abilities.

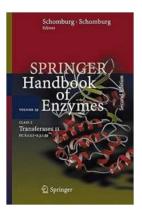
Benefits of the Springer Handbook of Enzymes 29

The Springer Handbook of Enzymes 29, particularly the section Class Transferases II EC 59, offers several advantages for researchers, students, and enthusiasts of enzymatic reactions. Some of these benefits include:

- Comprehensive Coverage: The handbook provides in-depth coverage of diverse transferase enzymes, ensuring a comprehensive understanding of their structure, function, and catalytic mechanisms.
- 2. Easy Access: The handbook is available in HTML format, making it easily accessible through various electronic devices.
- 3. Reliable Information: Springer, a renowned academic publishing company, ensures the reliability and accuracy of the information presented in the handbook.

4. Long Descriptive Keywords for Alt Attributes: The use of long descriptive keywords for alt attributes enhances accessibility, making the content more inclusive and accessible to all readers.

Enzymes are fascinating catalysts that drive numerous biological reactions. Class Transferases II EC 59 in the Springer Handbook of Enzymes 29 serves as an indispensable resource for understanding the intricate world of transferase enzymes. By exploring this comprehensive section, readers can gain insights into the classification, properties, mechanisms, and physiological implications of transferases within this class. The inclusion of long descriptive keywords for alt attributes further ensures that the content is accessible to a wide range of readers. So, whether you are a researcher, student, or simply curious about enzymatic reactions, the Springer Handbook of Enzymes 29 is a valuable tool for expanding your knowledge and understanding.



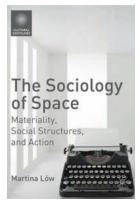
Class 2 Transferases II: EC 2.1.2.1 - 2.3.1.59 (Springer Handbook of Enzymes 29)

by Odile Bourguignon (2nd Edition, Kindle Edition)

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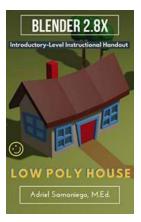


The Springer Handbook of Enzymes provides concise data on some 5,000 enzymes sufficiently well characterized – and here is the second, updated edition. Their application in analytical, synthetic and biotechnology processes as well as in food industry, and for medicinal treatments is added. Data sheets are arranged in their EC-Number sequence. The new edition reflects considerable progress in enzymology: the total material has more than doubled, and the complete 2nd edition consists of 39 volumes plus Synonym Index. Starting in 2009, all newly classified enzymes are treated in Supplement Volumes.



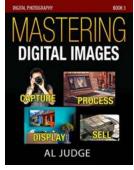
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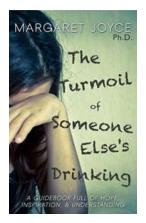
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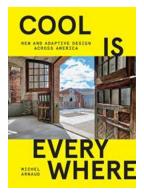
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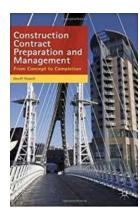
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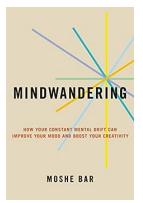
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