

TEMA 27

Gluconeogénesis.

Reacciones y regulación.

Sustratos principales de la gluconeogénesis.

Ciclos de sustratos .

TEMA 27

Las Figuras recogidas en este tema proceden de los siguientes textos:

- Berg • Tymoczko • Stryer. Biochemistry. Sixth Edition. 2007. W. H. Freeman and Company.

- Donald Voet • Judith G. Voet • Charlotte W. Pratt. Fundamentals of Biochemistry. Second Edition. 2006 by John Wiley & Sons, Inc.

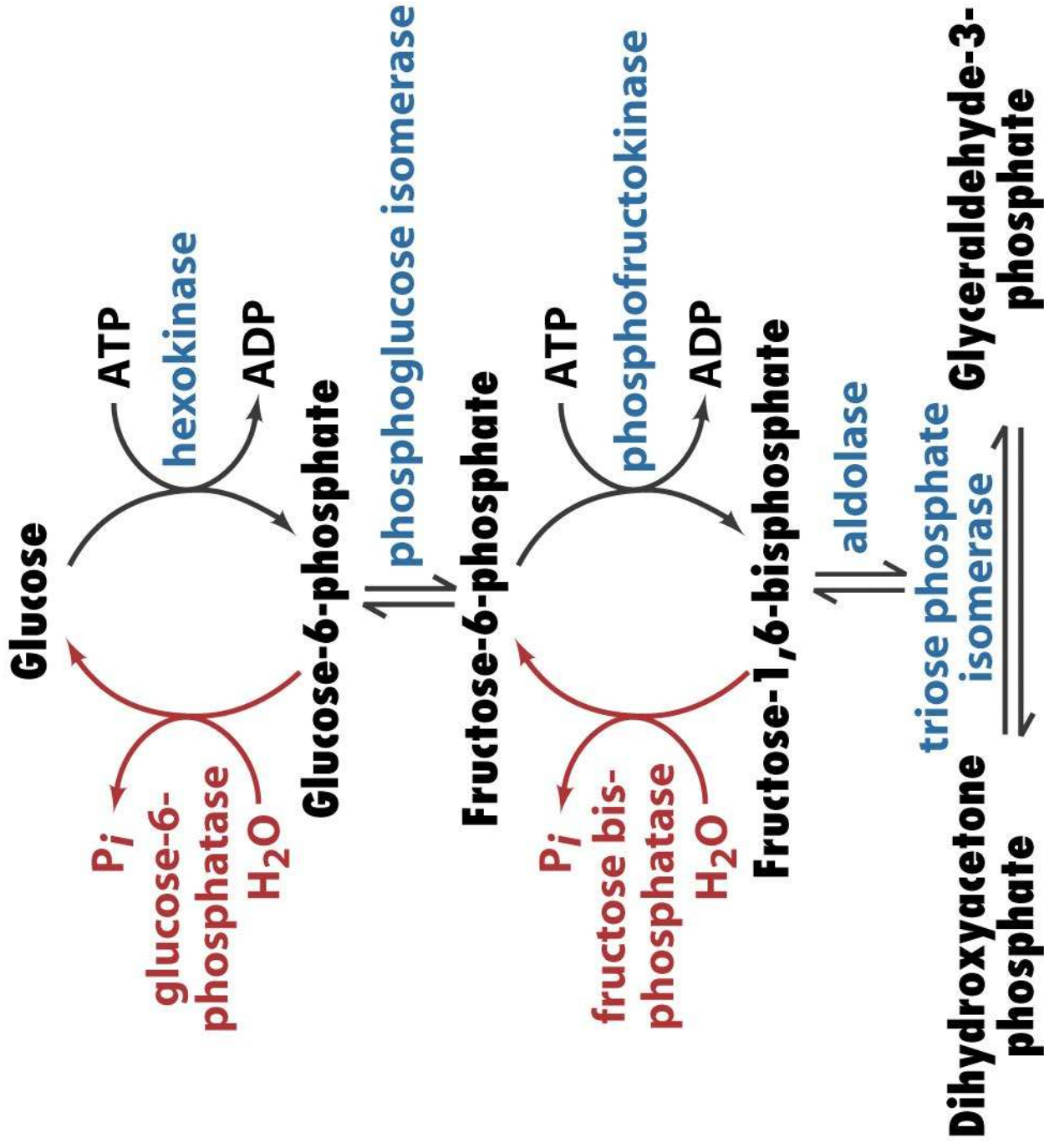


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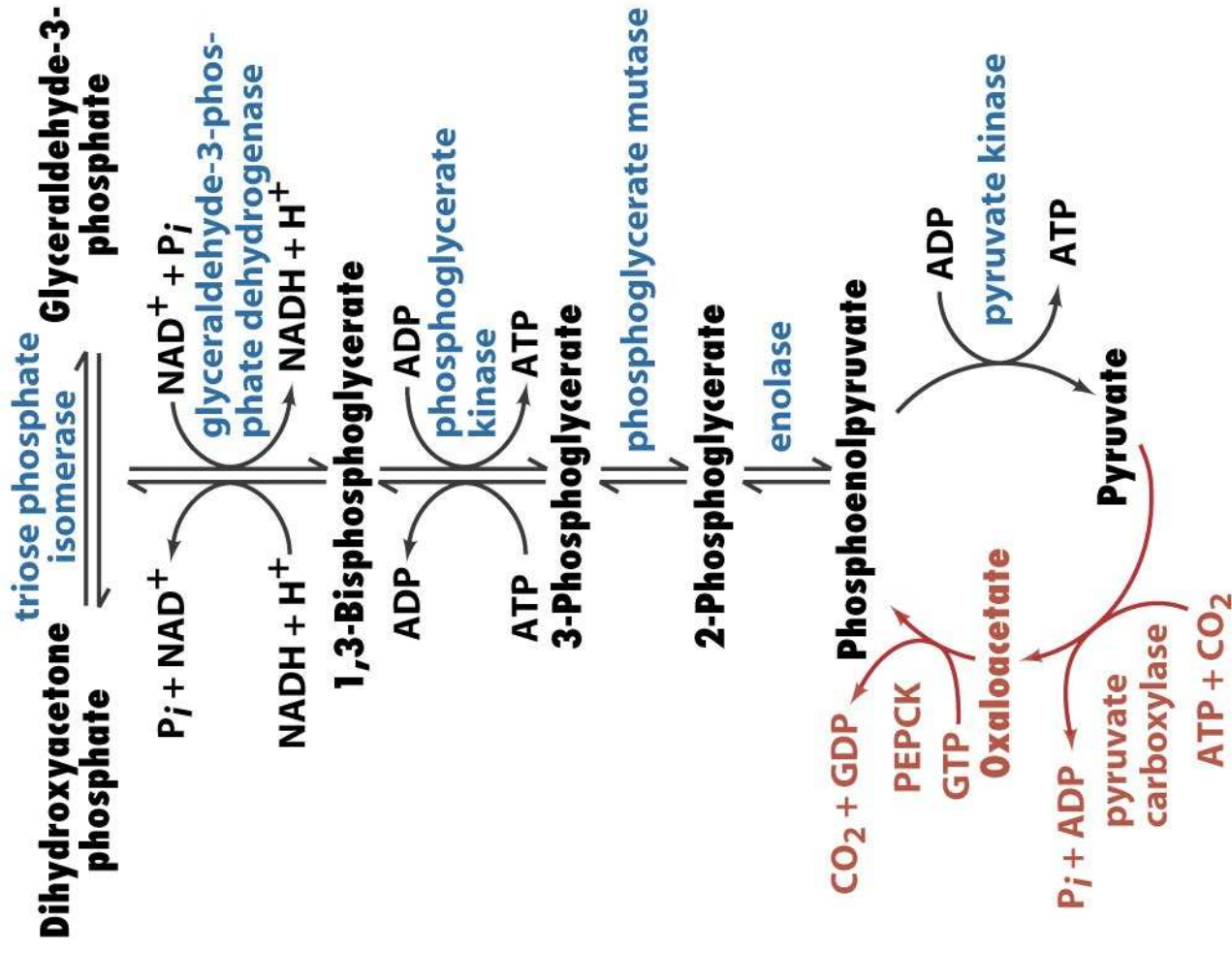


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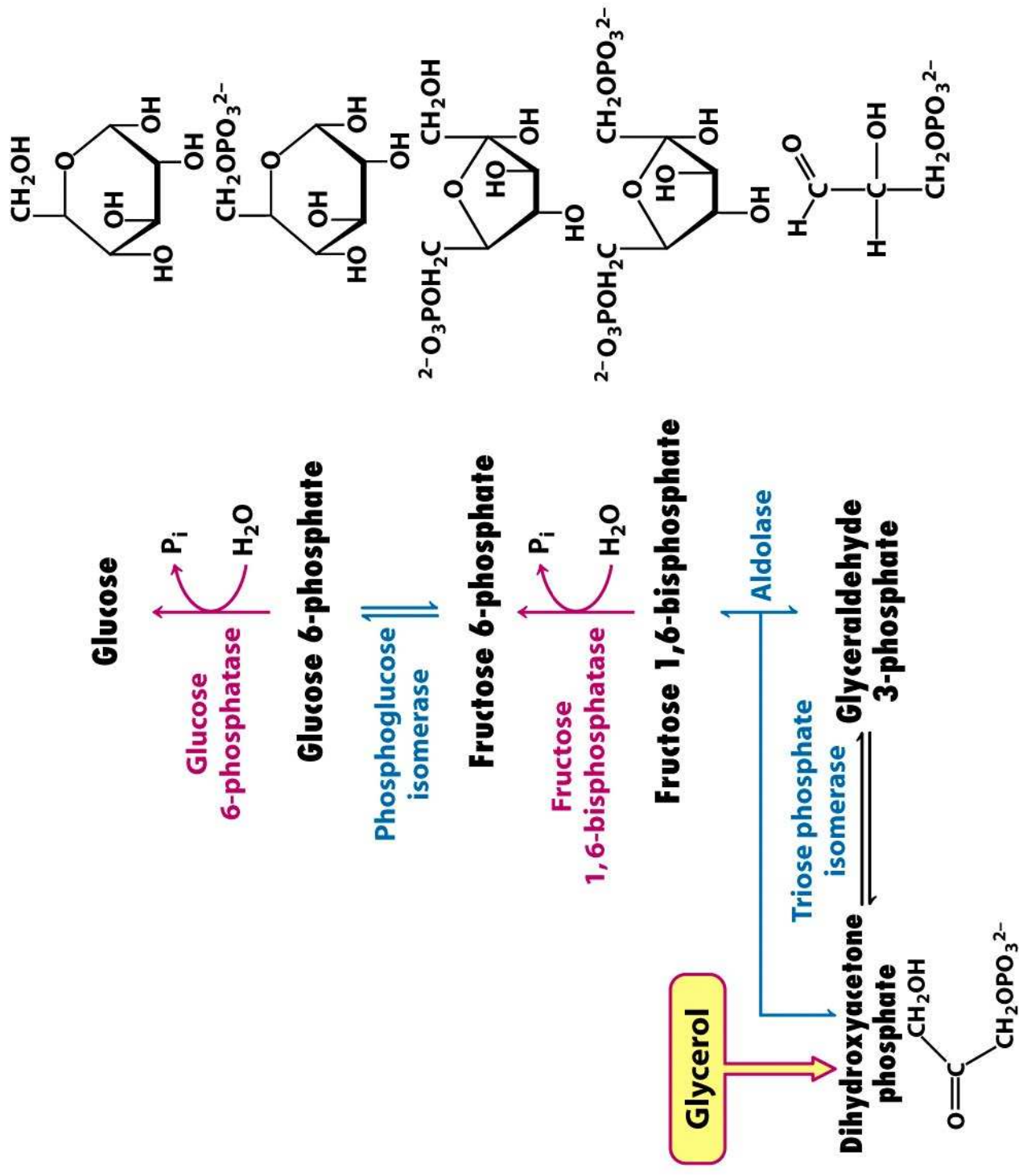


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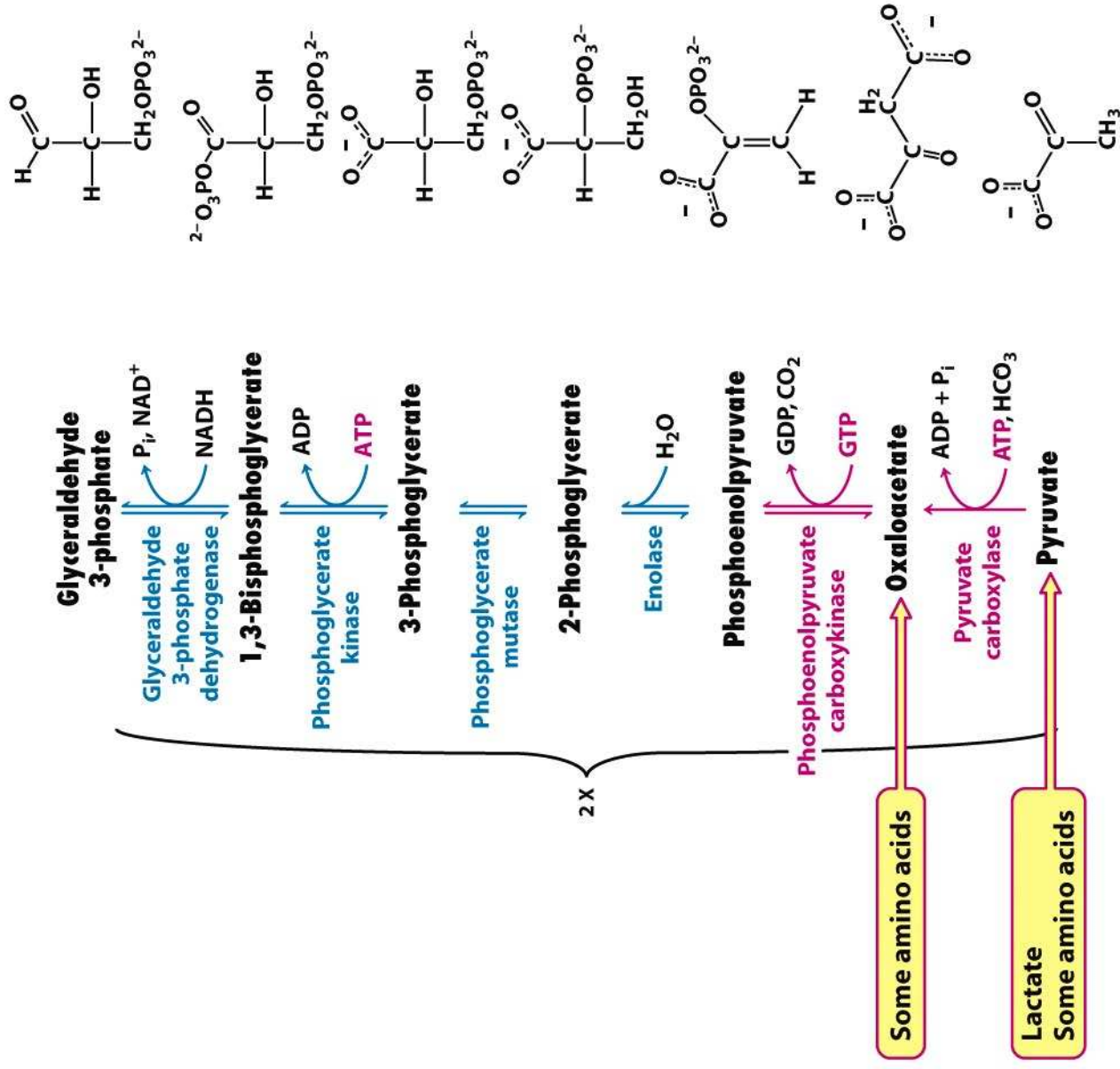
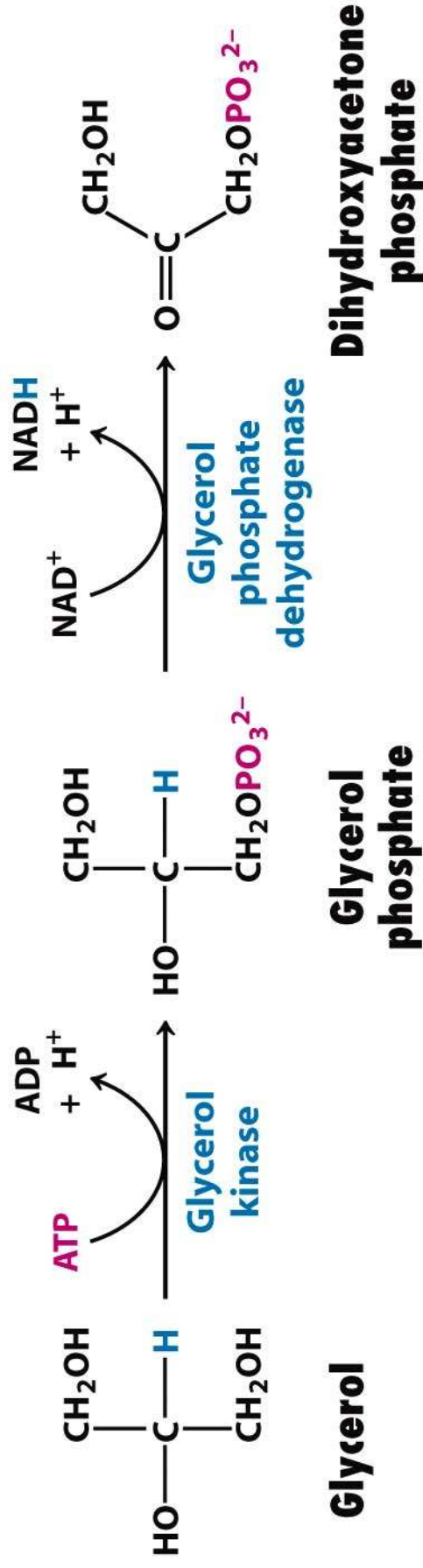


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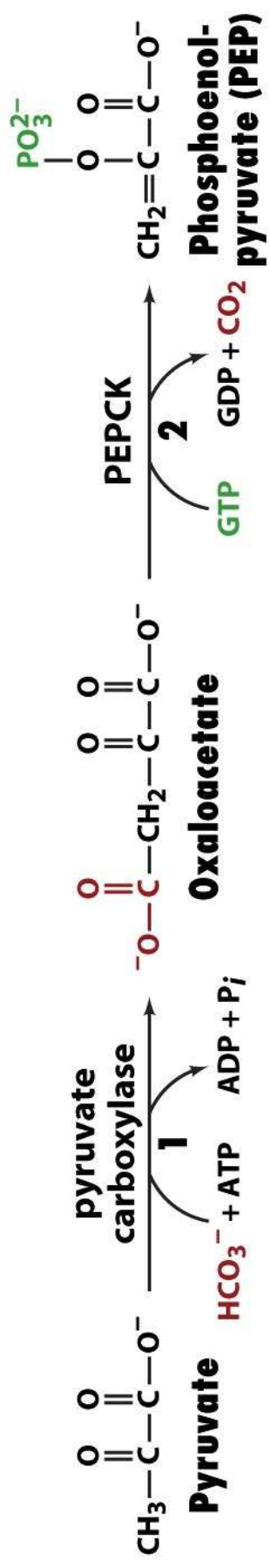


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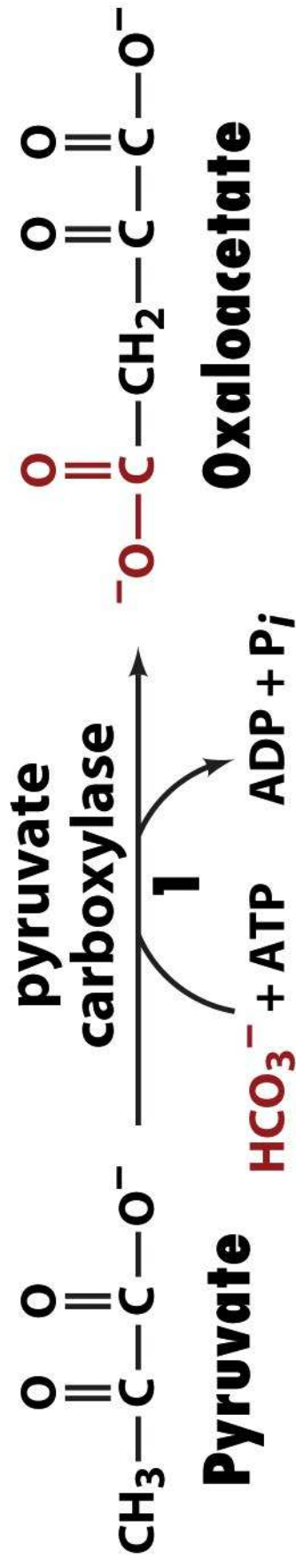


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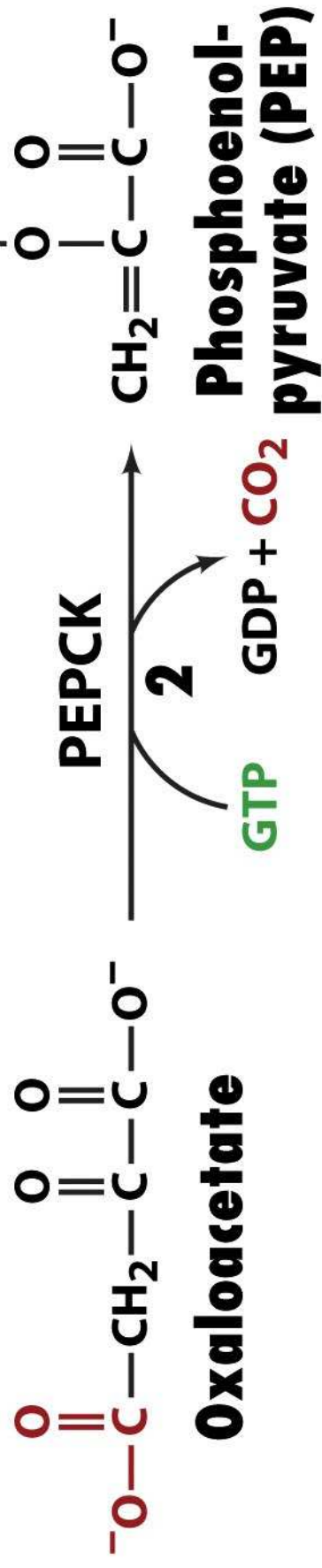


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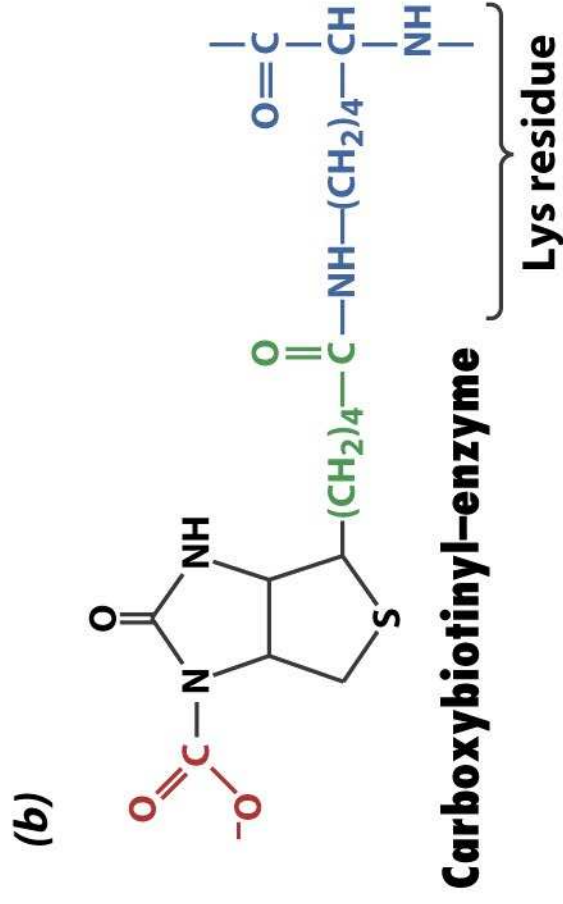
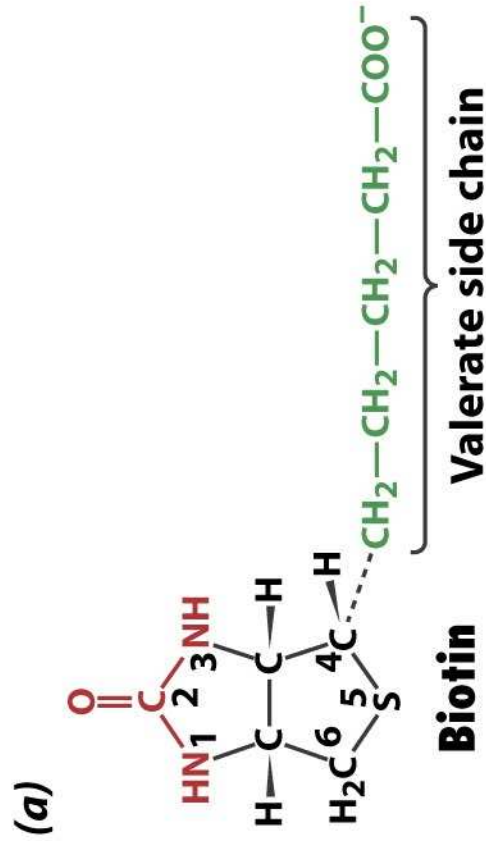


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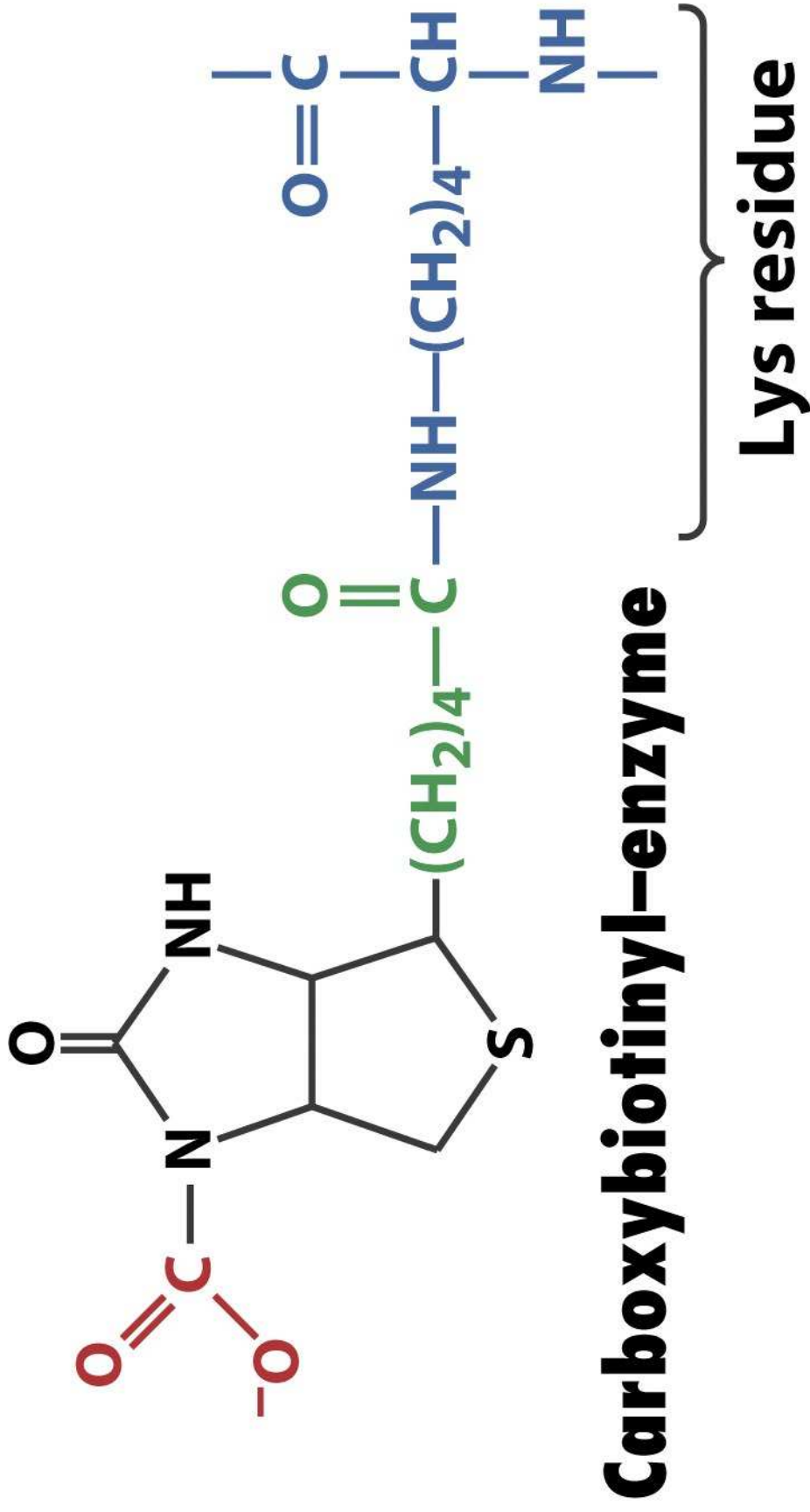
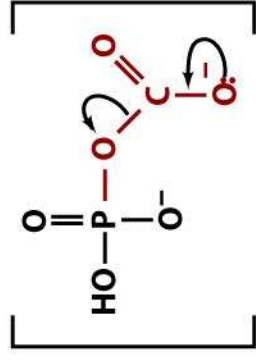
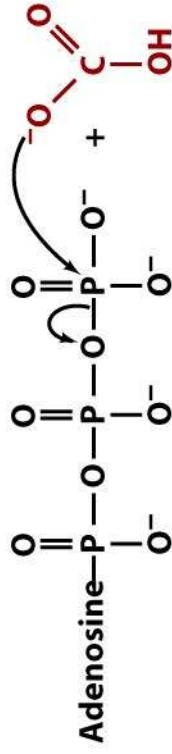


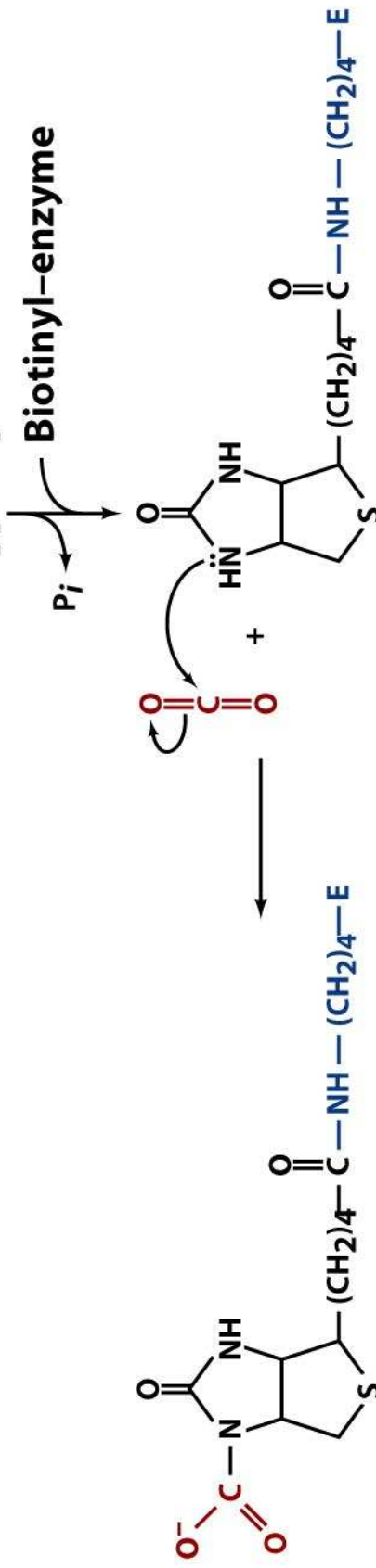
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Phase I



ATP

Carboxyphosphate



Carboxybiotinyl-enzyme

Biotinyl-enzyme

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Phase II

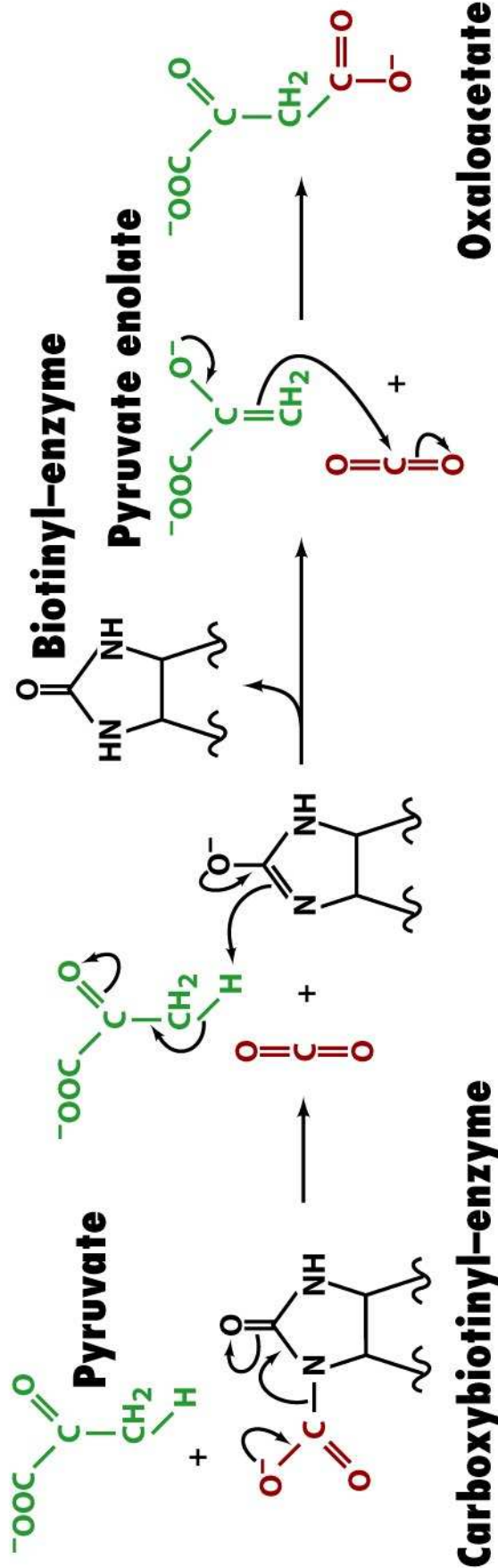
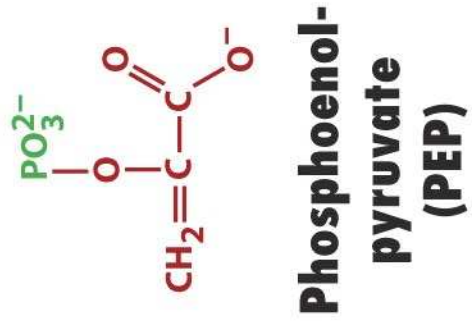


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PEPCK
 $\xrightarrow{\text{GDP} + \text{CO}_2}$

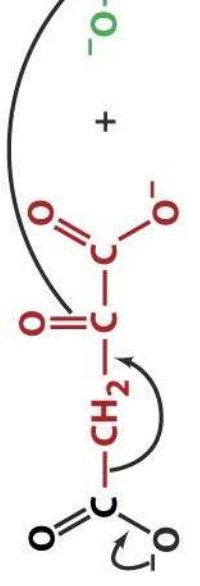
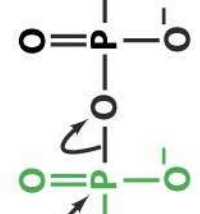
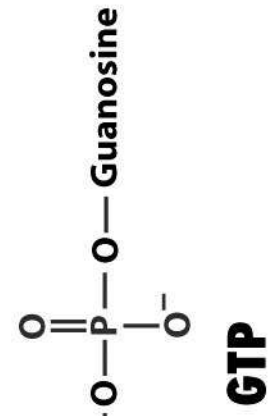


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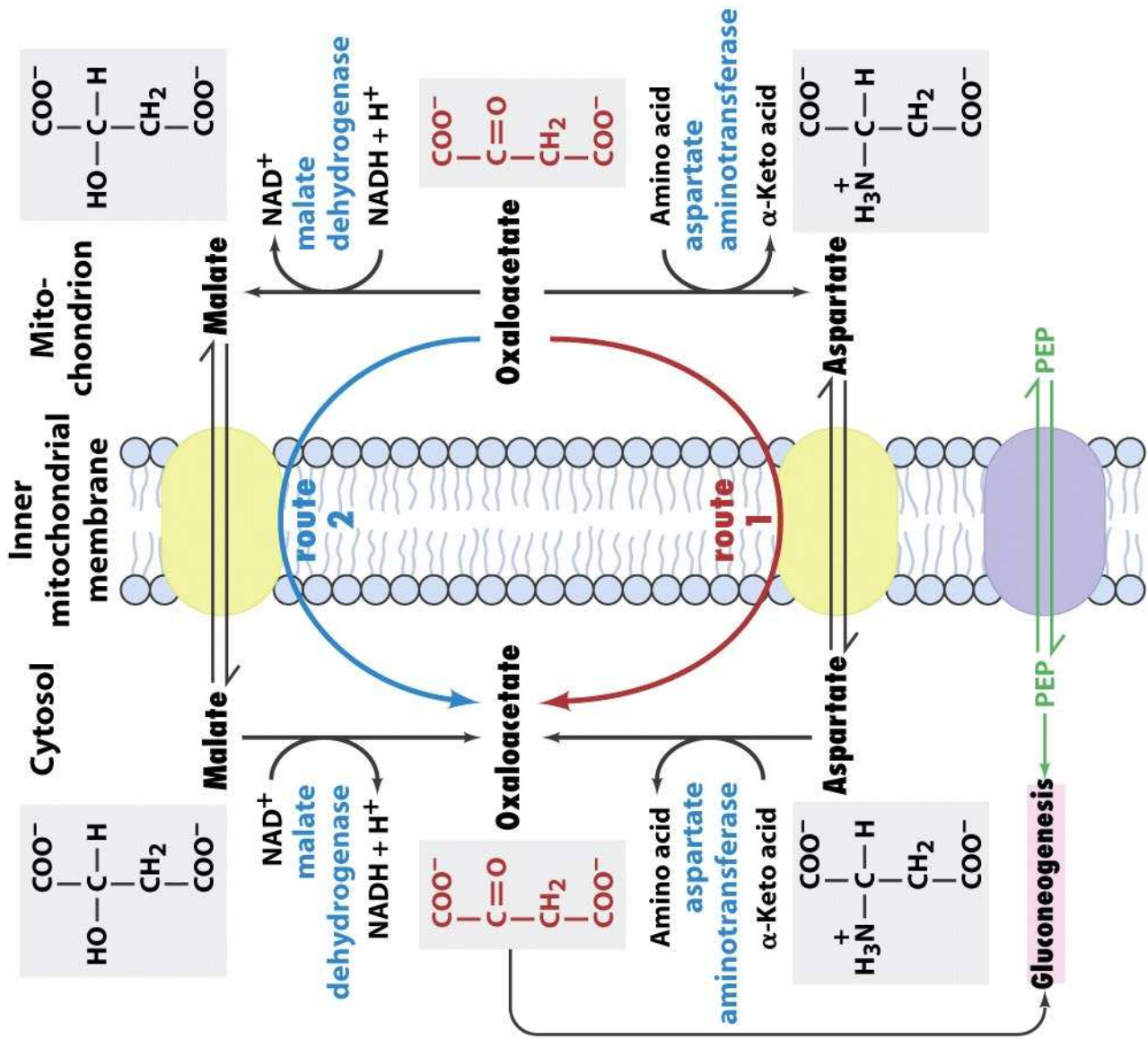


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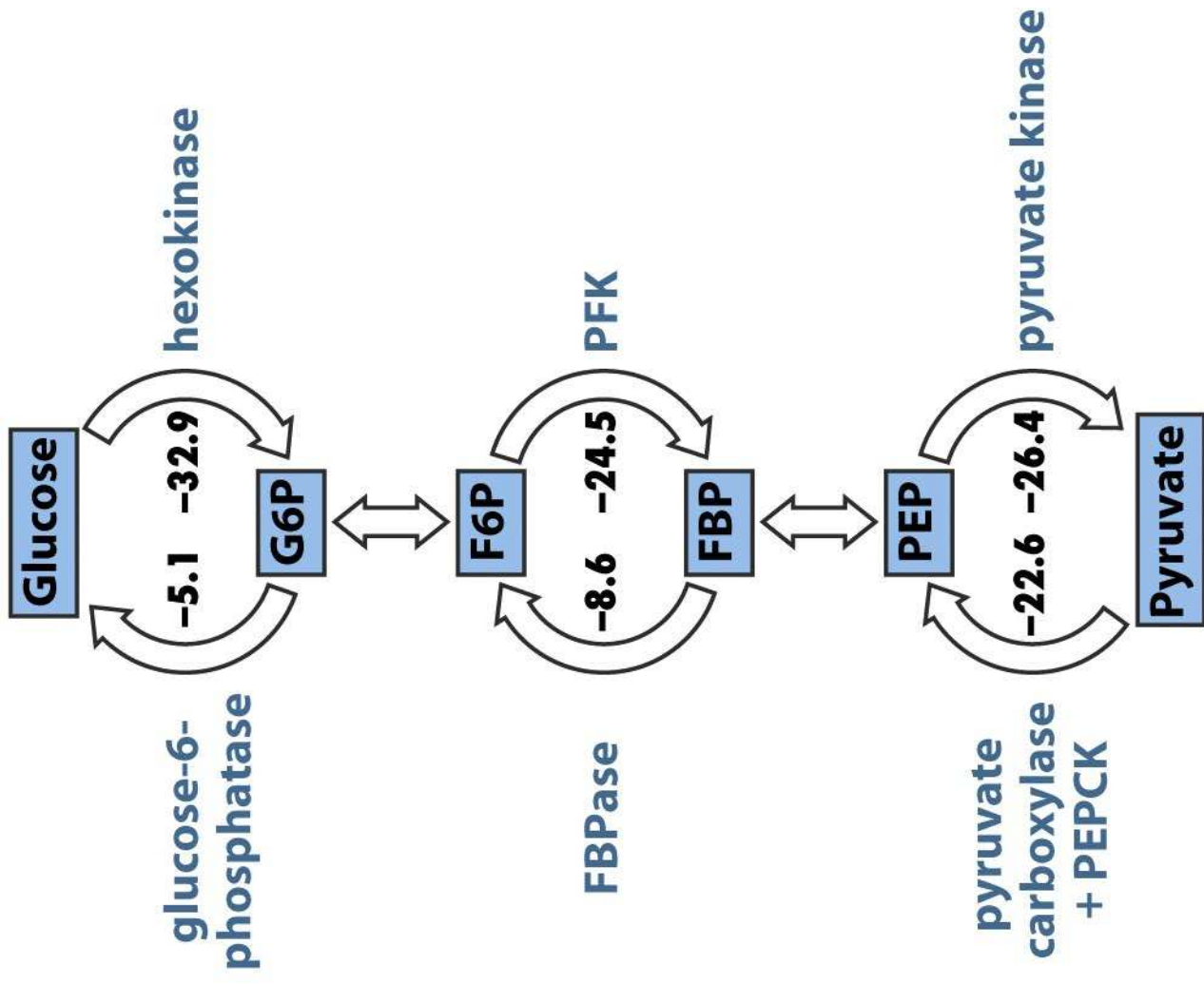


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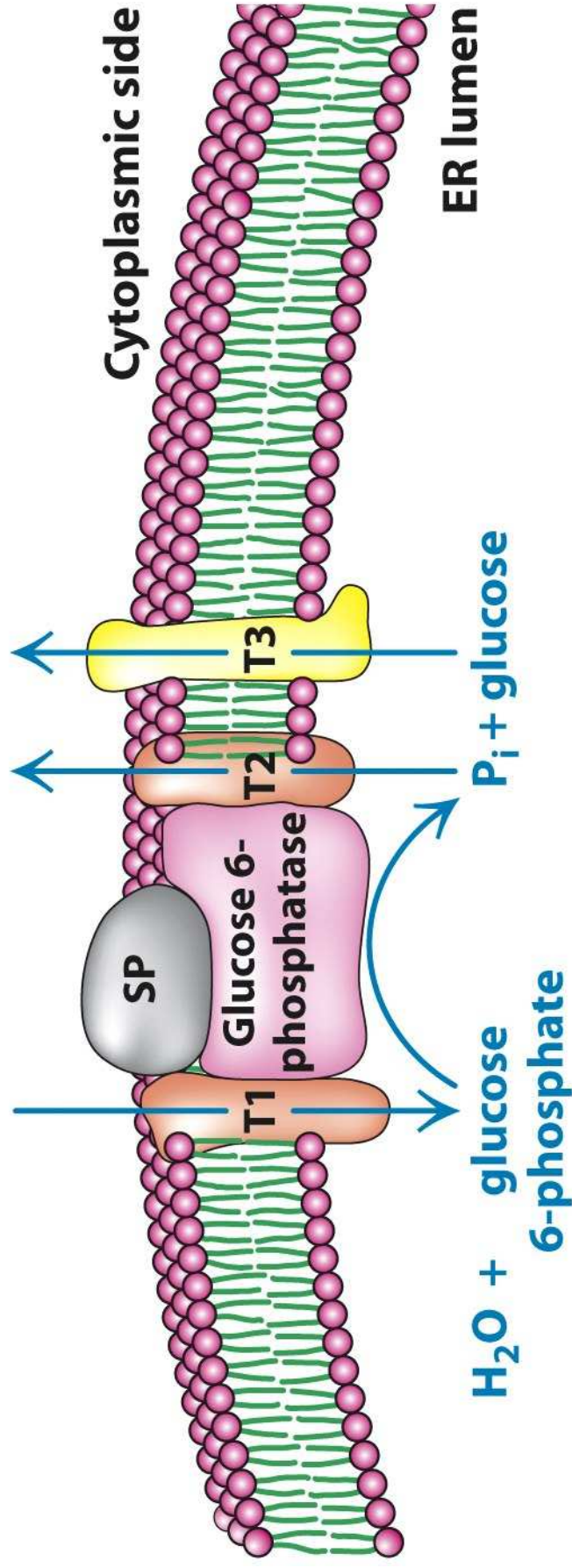
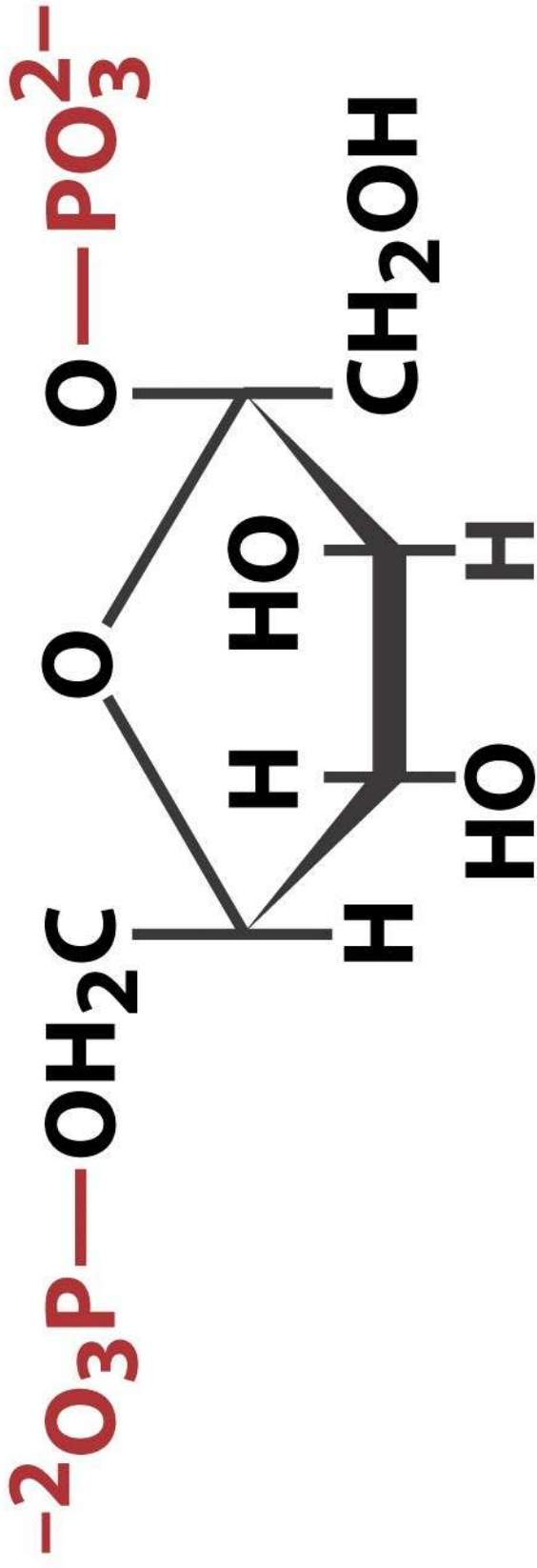


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β -D-Fructose-2,6-bisphosphate (F2,6P)

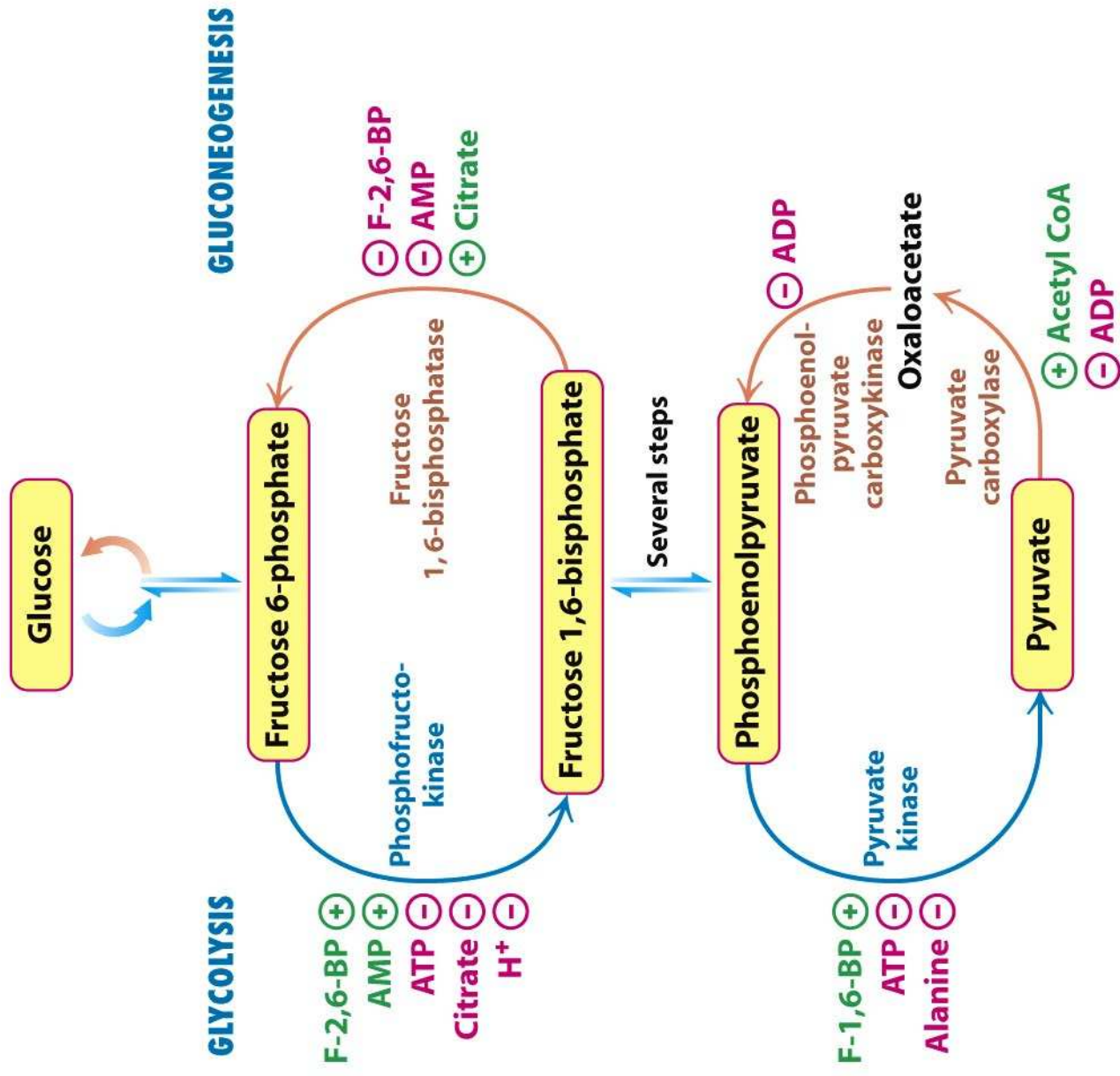


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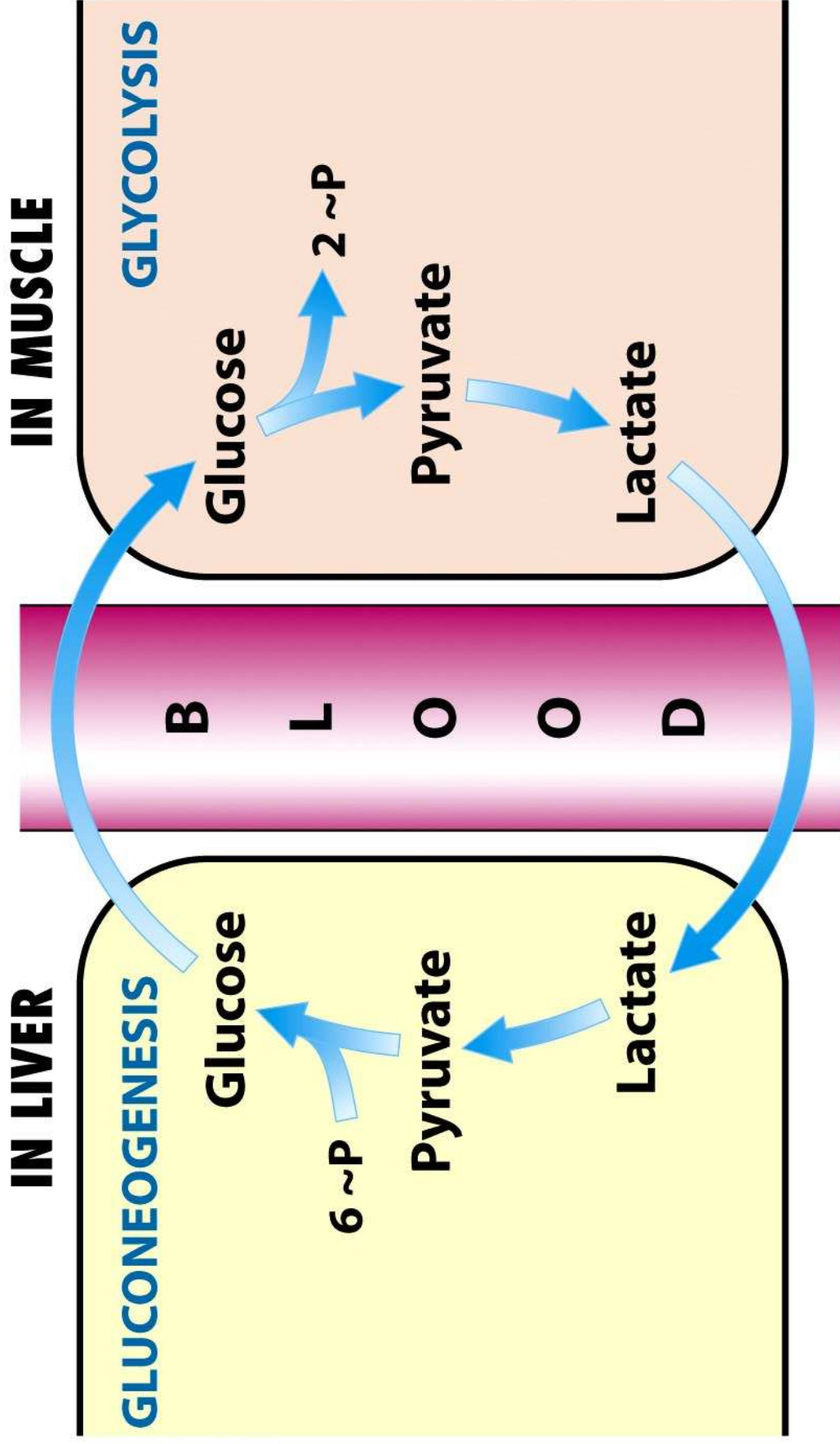
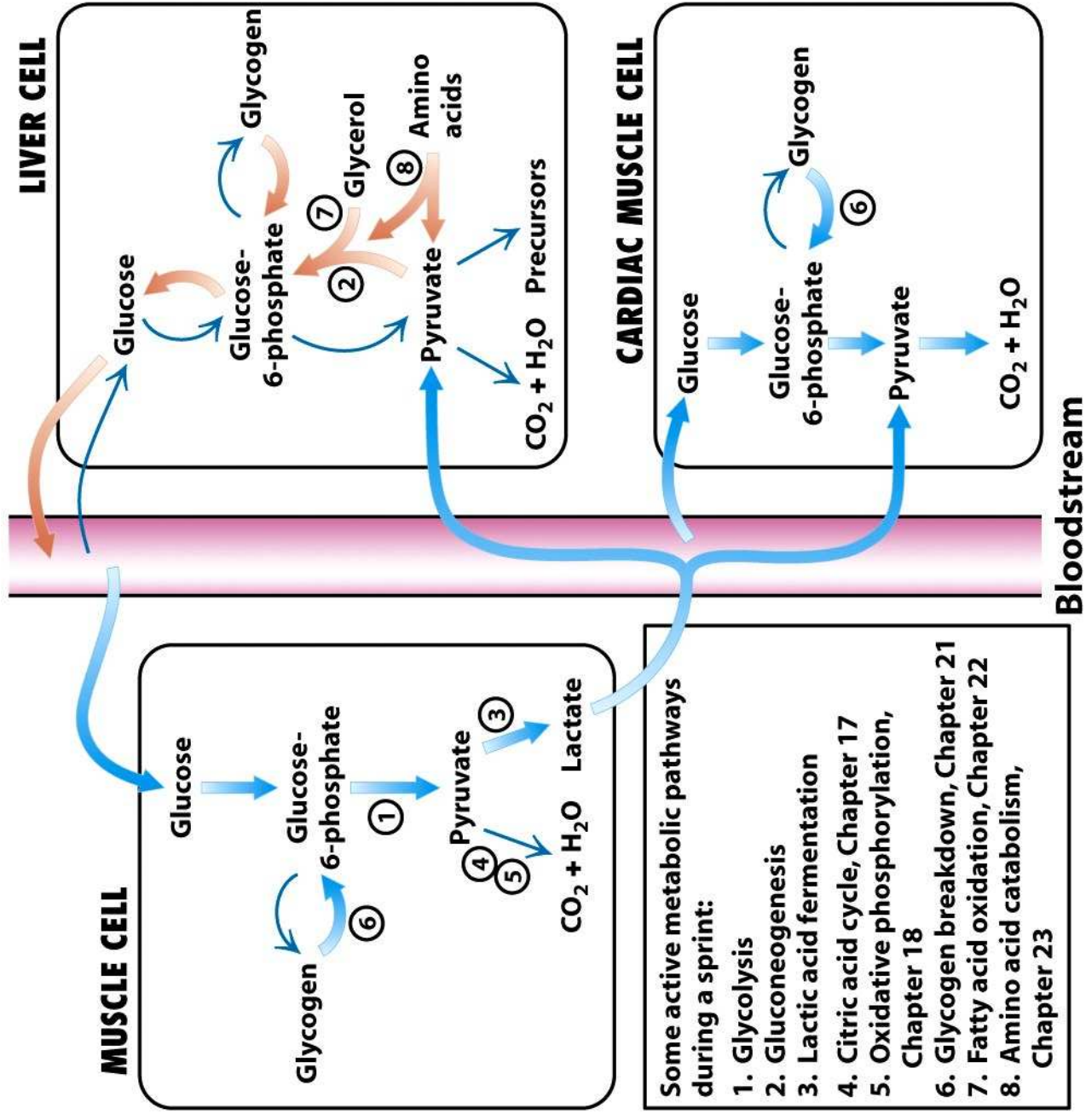


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- Some active metabolic pathways during a sprint:
1. Glycolysis
 2. Gluconeogenesis
 3. Lactic acid fermentation
 4. Citric acid cycle, Chapter 17
 5. Oxidative phosphorylation, Chapter 18
 6. Glycogen breakdown, Chapter 21
 7. Fatty acid oxidation, Chapter 22
 8. Amino acid catabolism, Chapter 23

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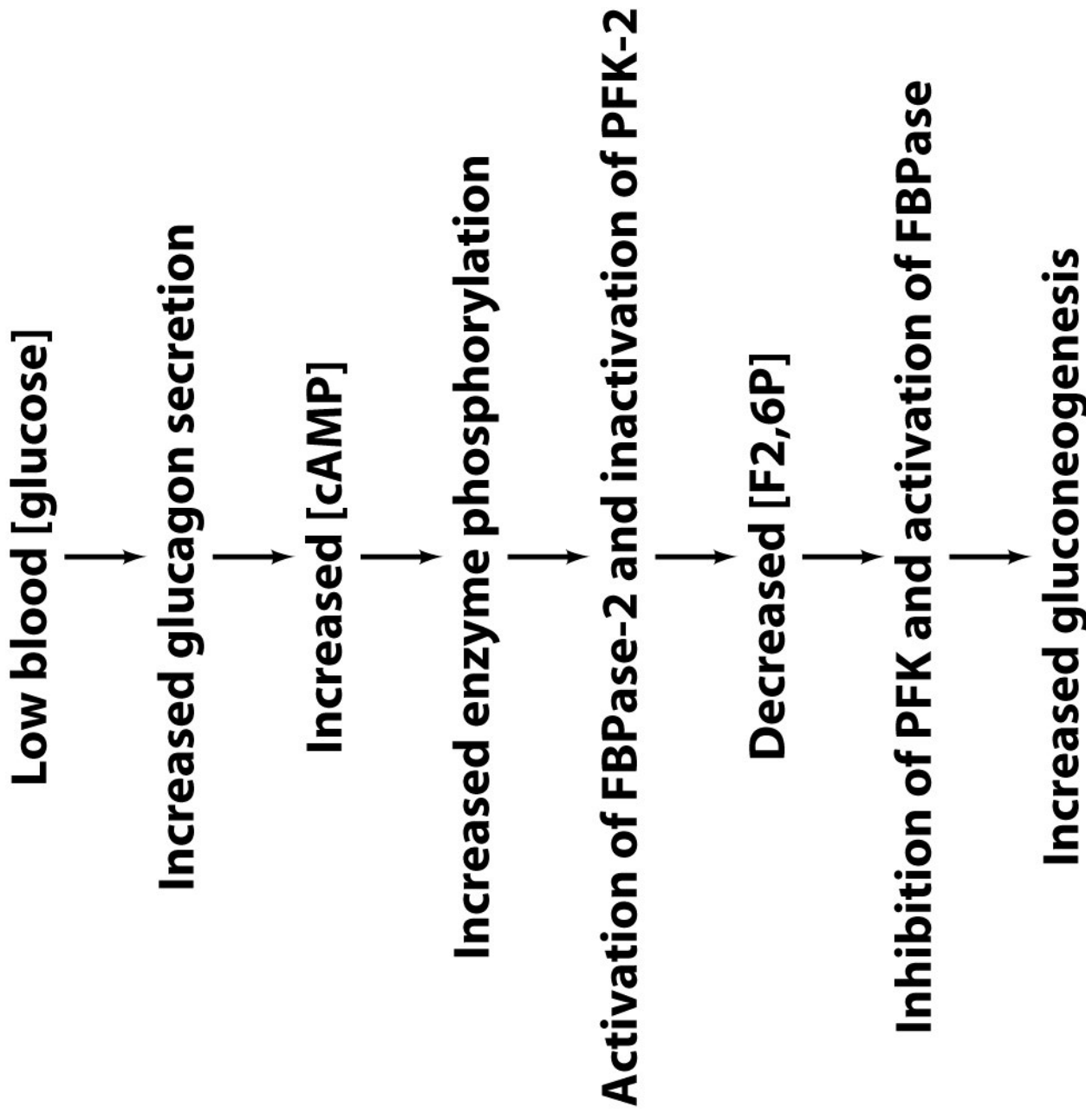


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