

B.Sc-4th sem
Unit-2 (CC-410)

GLYCOLYSIS

BY

Dr. Amresh Kumar

Dept. of Zoology, PWC, Patna-01

Defination



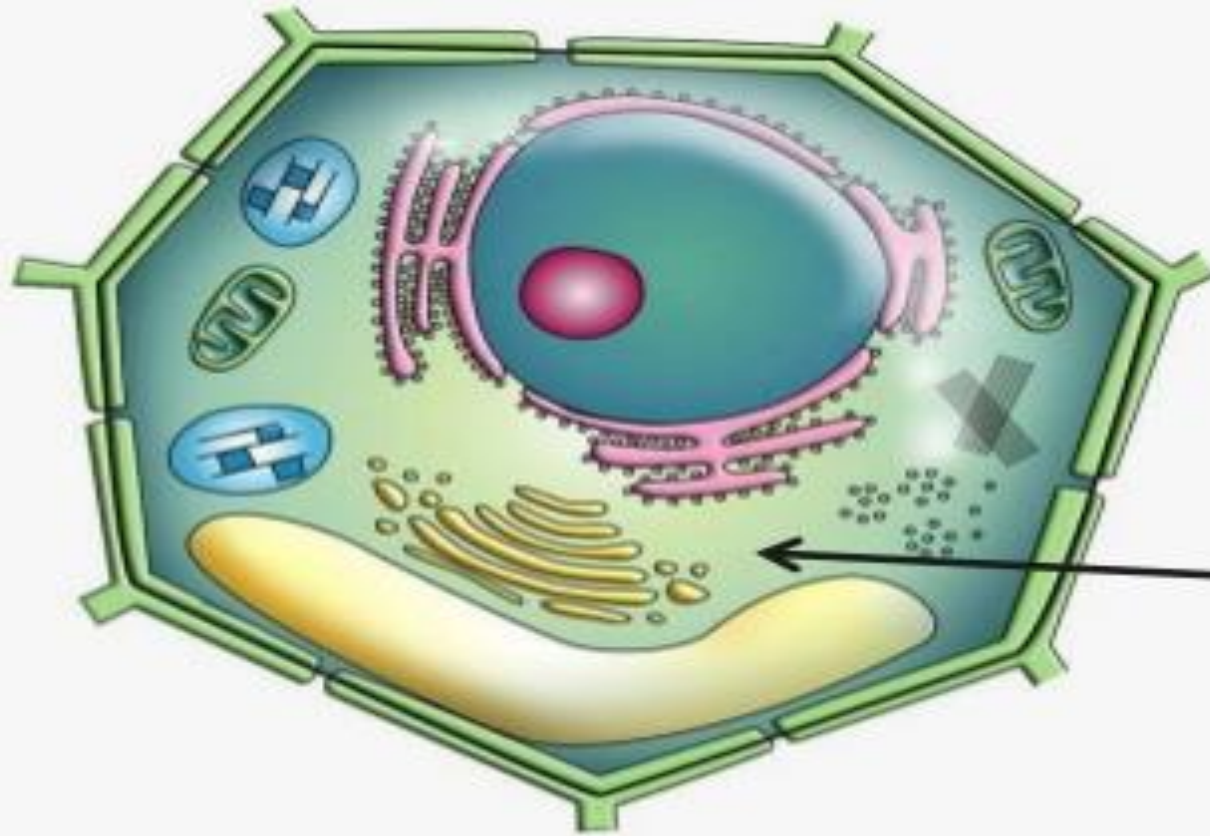
- **Glyco- Glucose**
- **Lysis -Breakdown**

The enzymatic, stepwise breckdoun of glucose into two molecule of pyruvic acid in the presence of various enzymes in side cytoplasm is known as glycolysis.

Site



- It is take place in cytoplasm of cell



Cytoplasm

History

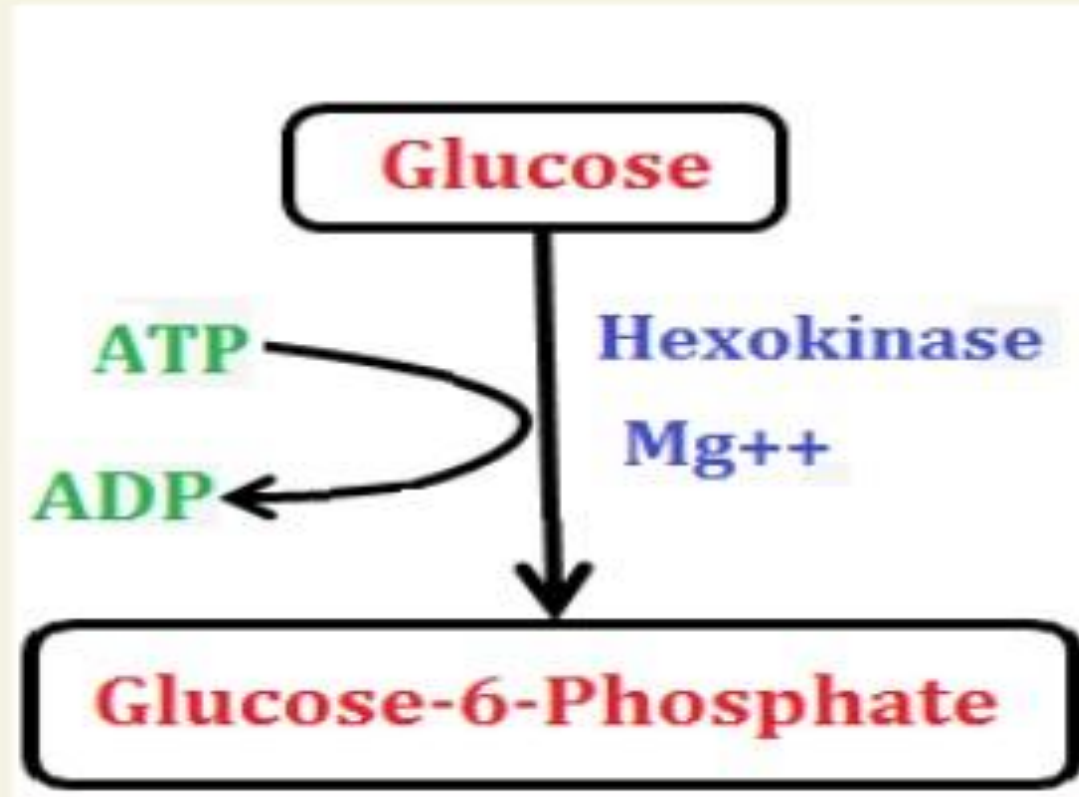


- Different steps were discovered by Gustav Embden, Otto Meyerhof, and Jacob Karol Parnas.
- Hence it is also called as EMP Pathway

Mechanism



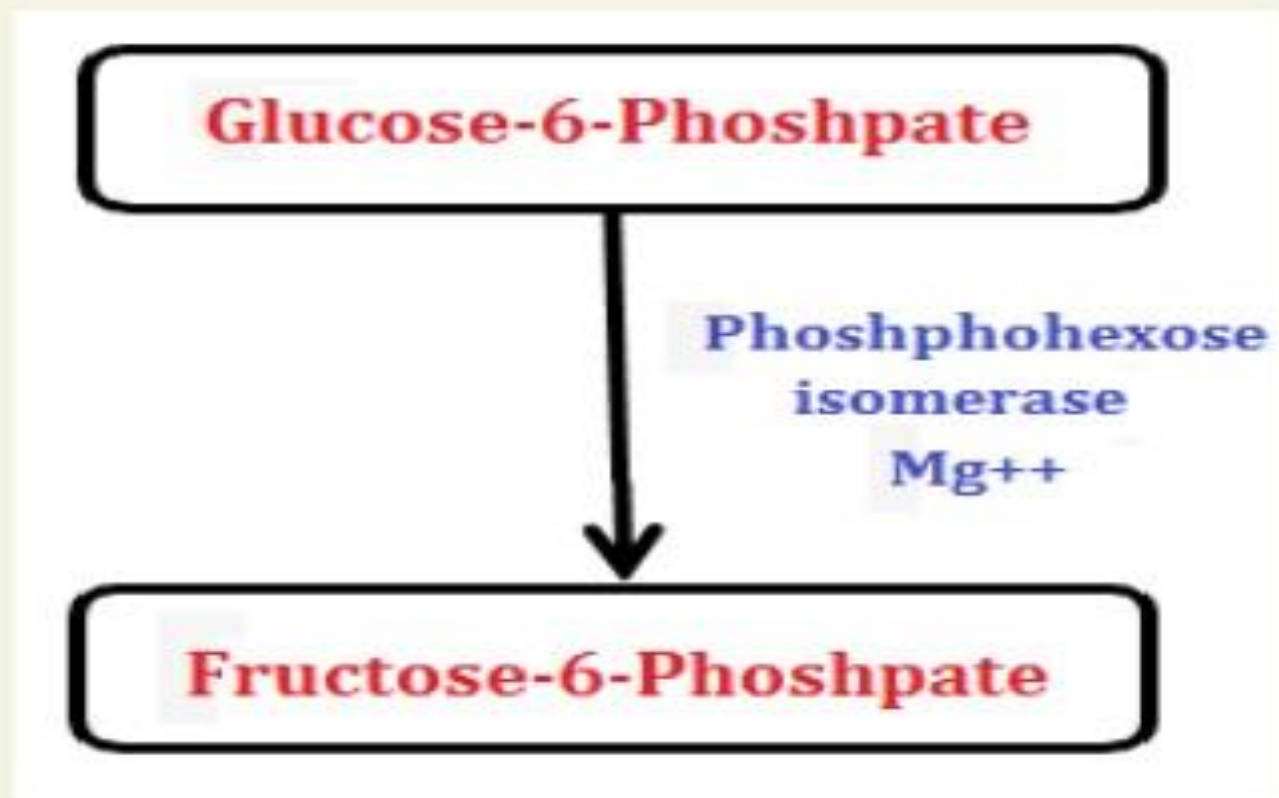
1. Phosphorylation-I



Mechanism



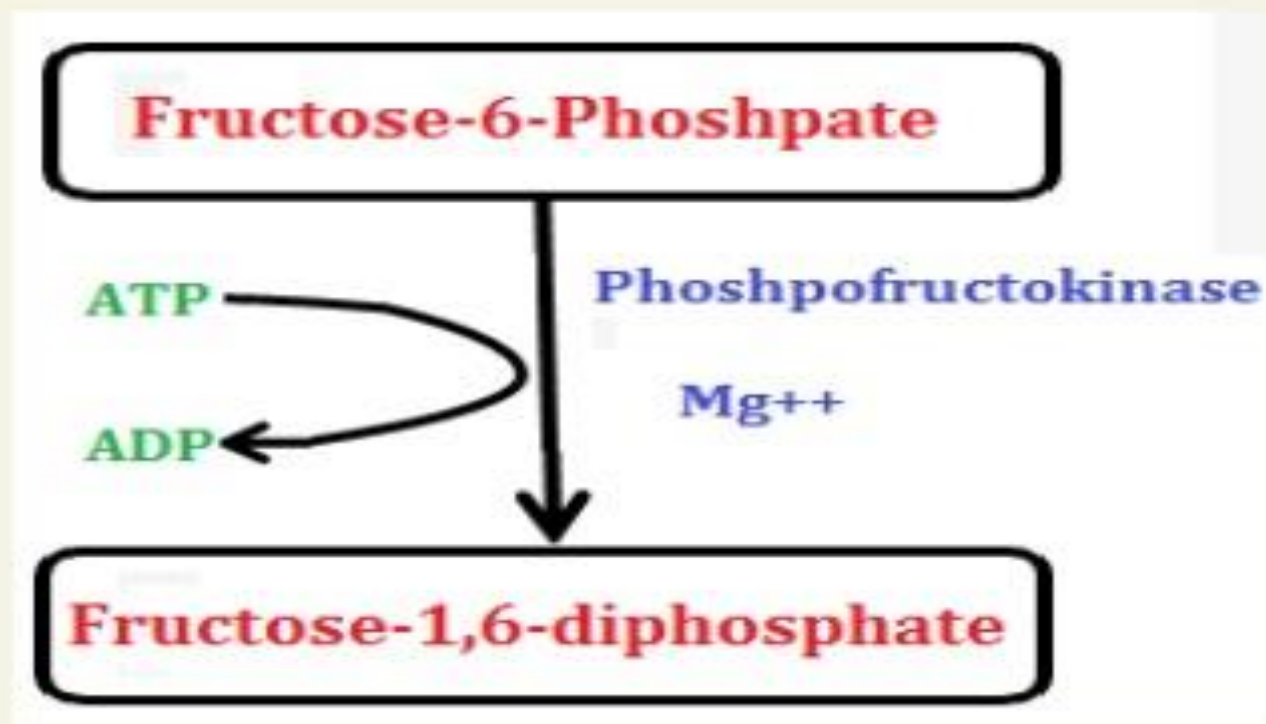
2. Isomatisation-I



Mechanism



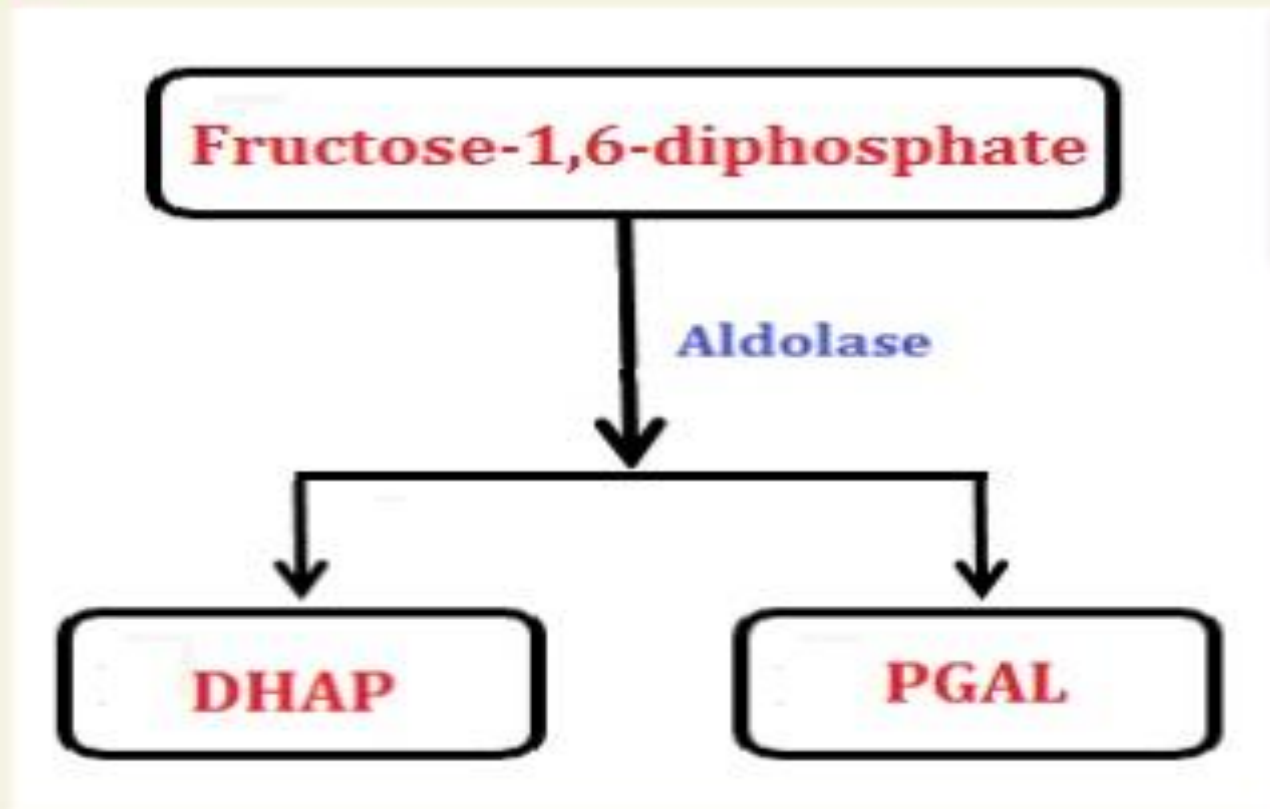
3. Phosphorylation-II



Mechanism



4. Cleavage



Mechanism



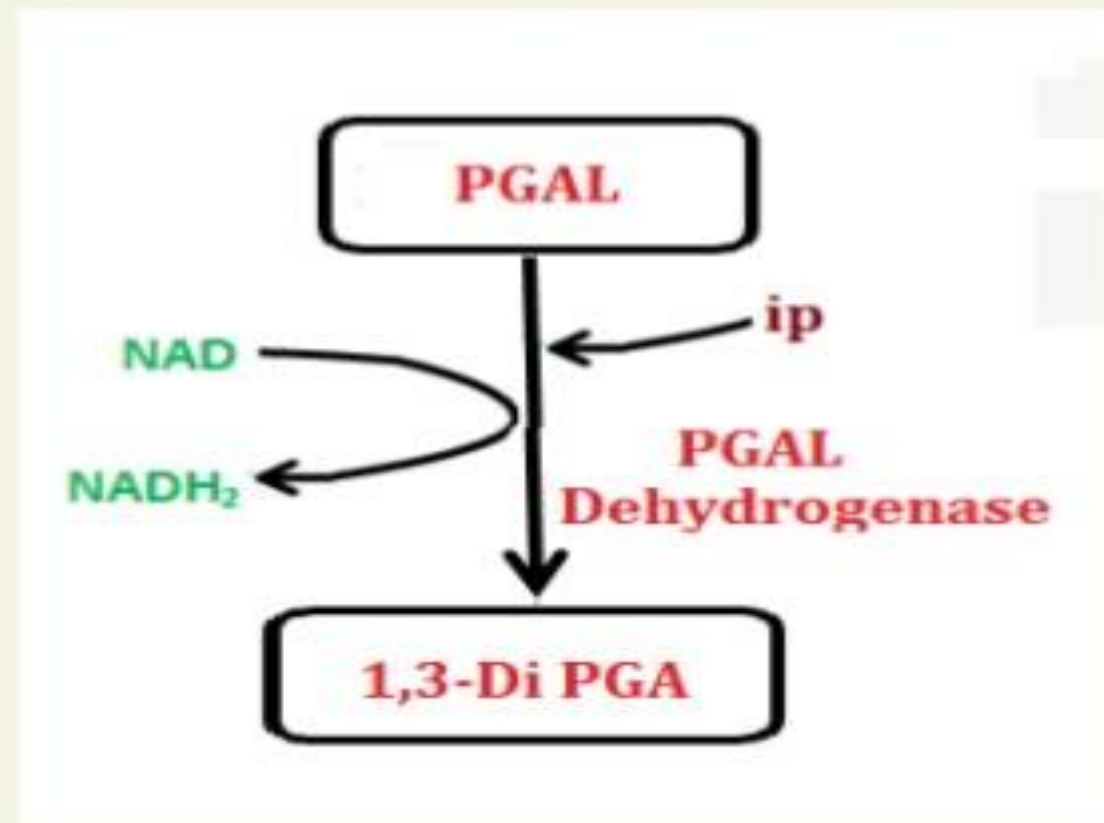
5. Isomerization-II



Mechanism



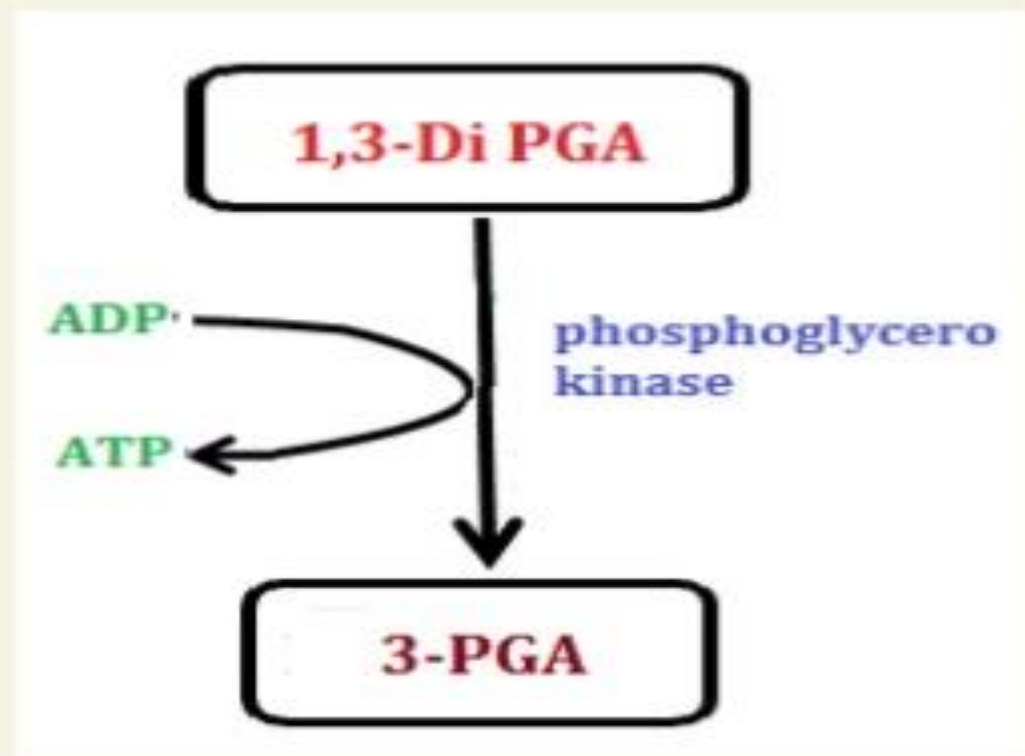
6. Oxidation & Phosphorylation



Mechanism



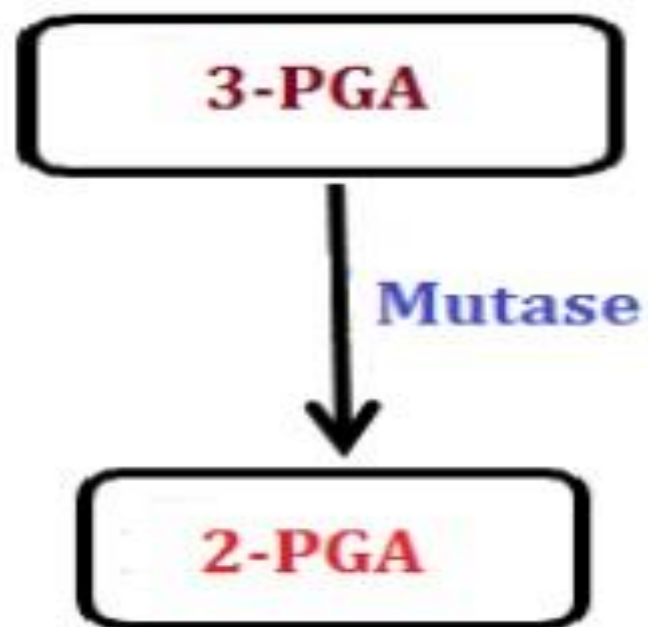
7. ATP Generation-I



Mechanism



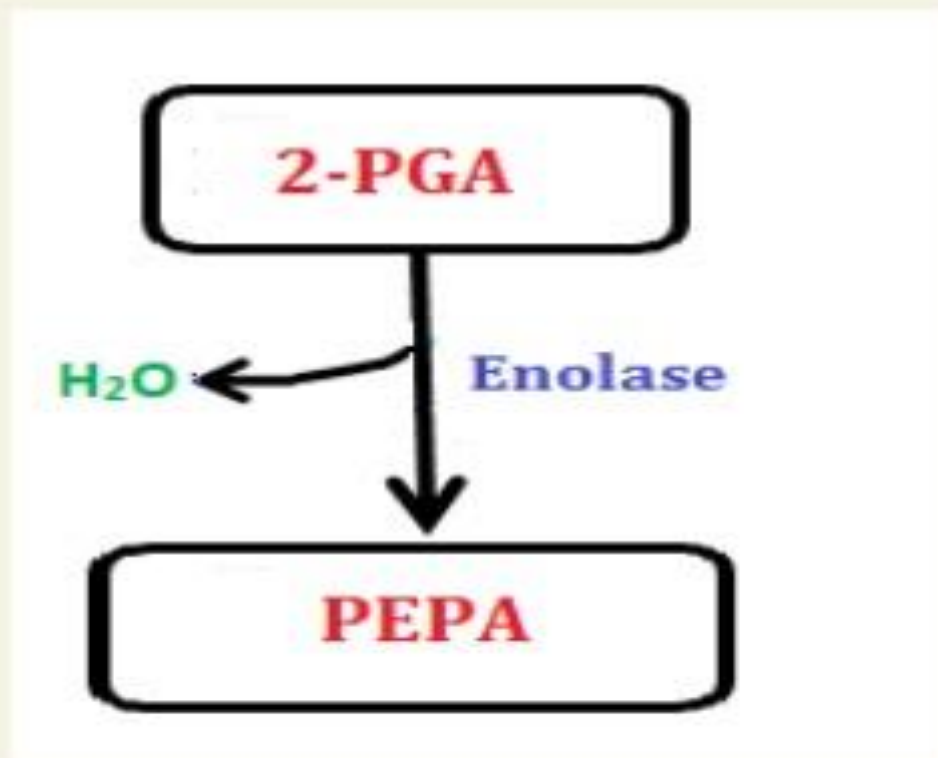
8. Isomerisation



Mechanism

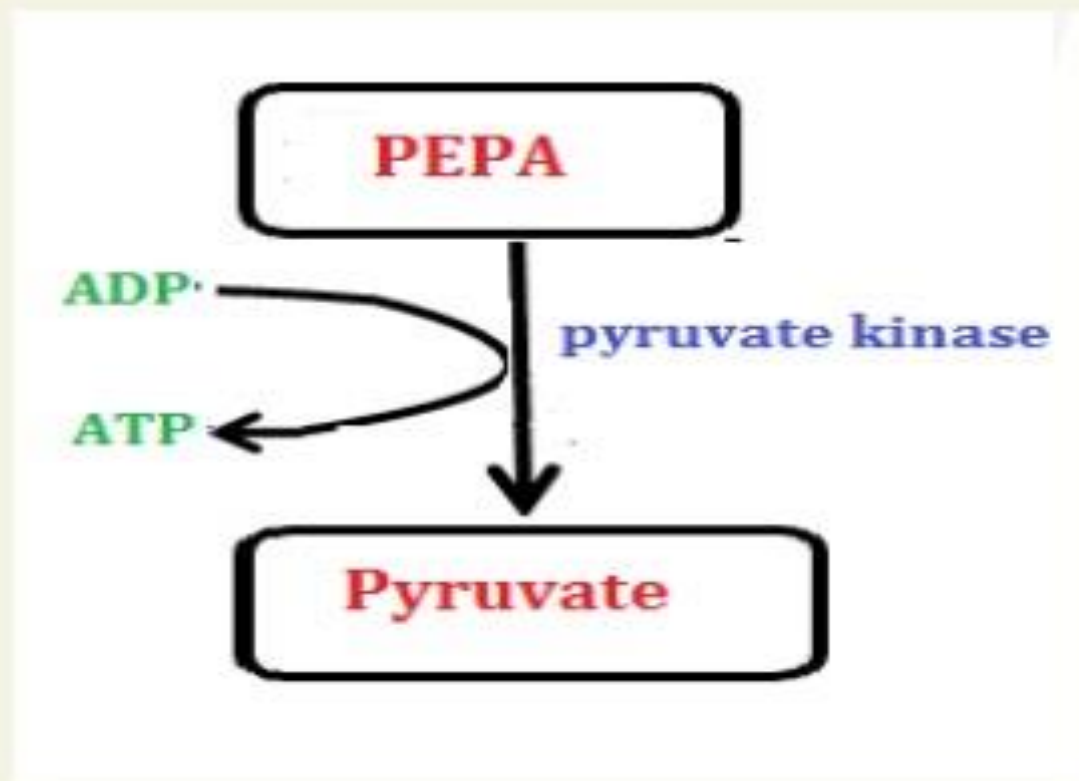


9. Dehydration



Mechanism

10. ATP Generation-II



Significance



- **Glucose is breakdown into two molecules of pyruvate.**
- **ATP Produced**
- **NADH₂ Produced**



Thank You