

طَفَّ اَزْزِيَاةَ الْفِجْلِ الْخَاشِرِ .

Enzyme	Function
1. Hexokinase	Glucose \rightarrow Glucose 6 phosphate
2. Phosphoglucosomerase	Glucose 6 phosphate \rightarrow Fructose 6 phosphate
3. Phosphofructokinase	Fructose 6 phosphate \rightarrow Fructose 1,6-bisphosphate + regulation of cellular respiration
4. Aldolase	breaks down Fructose 1,6-bisphosphate into "G3P" and "DHAP"
5. Isomerase	Catalyzes the conversion between "G3P" and "DHAP"
6. Triose phosphate dehydrogenase	catalyzes the oxidation of G3P and reduction of NAD^+
7. Phospho-glycerokinase	1,3 bisphosphoglycerate \rightarrow 3 phosphoglycerate
8. Phospho-glyceromutase	3 phosphoglycerate \rightarrow 2 phosphoglycerate
9. Enolase	2 phosphoglycerate \rightarrow phosphoenol-pyruvate by taking H_2O molecule
10. Pyruvate kinase	Phosphoenol-pyruvate (PEP) \rightarrow Pyruvate \smile
11. Multi complex enzyme "Pyruvate dehydrogenase"	Oxidation of Pyruvate into Acetyl coA

12- Decarboxylase

removes CO_2 from the compound

13- Dehydrogenase

Reduction of NAD^+ into NADH

In general, we could say that dehydrogenase is responsible of redox reactions.

14- Isocitrate
dehydrogenase complex

- Decarboxylation // oxidation of Isocitrate and reduction of NAD^+

15- α -ketoglutarate
dehydrogenase complex

- Decarboxylation // oxidation of α -ketoglutarate and reduction of NAD^+

16- Lipase

- Breaking down fats into glycerol and fatty acids

17- Protease

- Breaking down proteins into amino-acids