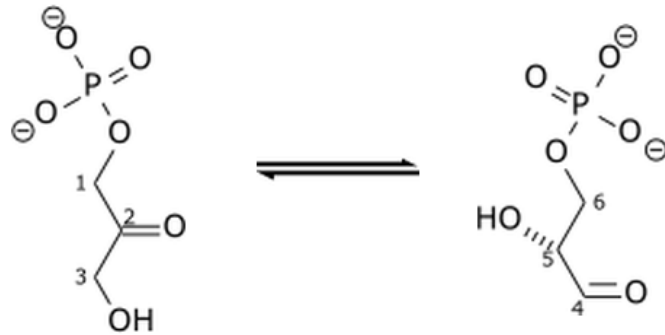


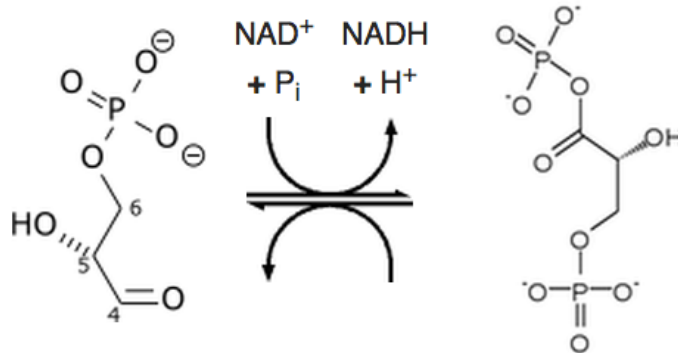
CONCEPT: GLYCOLYSIS

5. Triose phosphate isomerase (TIM) ($\Delta G'^{\circ} = 7.5 \text{ kJ/mol}$) DHAP $\rightarrow$ G3P

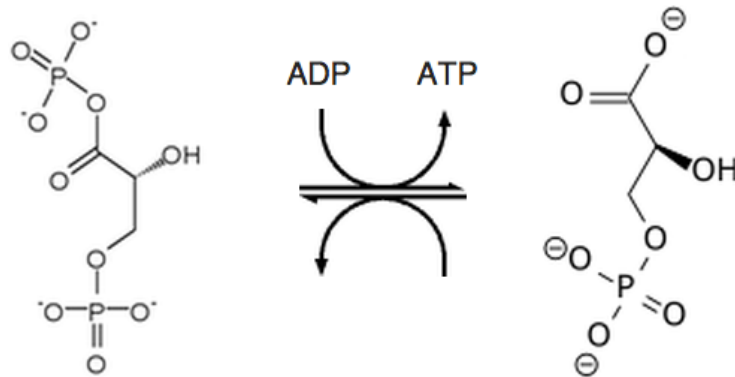


• Everything from this point on is doubled for 1 molecule of glucose

6. Glyceraldehyde 3-phosphate dehydrogenase ($\Delta G'^{\circ} = 6.3 \text{ kJ/mol}$) $\text{G3P} + \text{P}_i + \text{NAD}^+ \rightarrow 1,3\text{-bisphosphoglycerate} + \text{NADH}$



7. 3-Phosphoglycerate kinase ($\Delta G'^{\circ} = -18.5 \text{ kJ/mol}$) $1,3\text{-bisphosphoglycerate} + \text{ADP} \rightarrow 3\text{-phosphoglycerate} + \text{ATP}$



8. 3-Phosphoglycerate mutase ($\Delta G'^{\circ} = 4.4 \text{ kJ/mol}$) $3\text{-phosphoglycerate} \rightarrow 2\text{-phosphoglycerate}$

