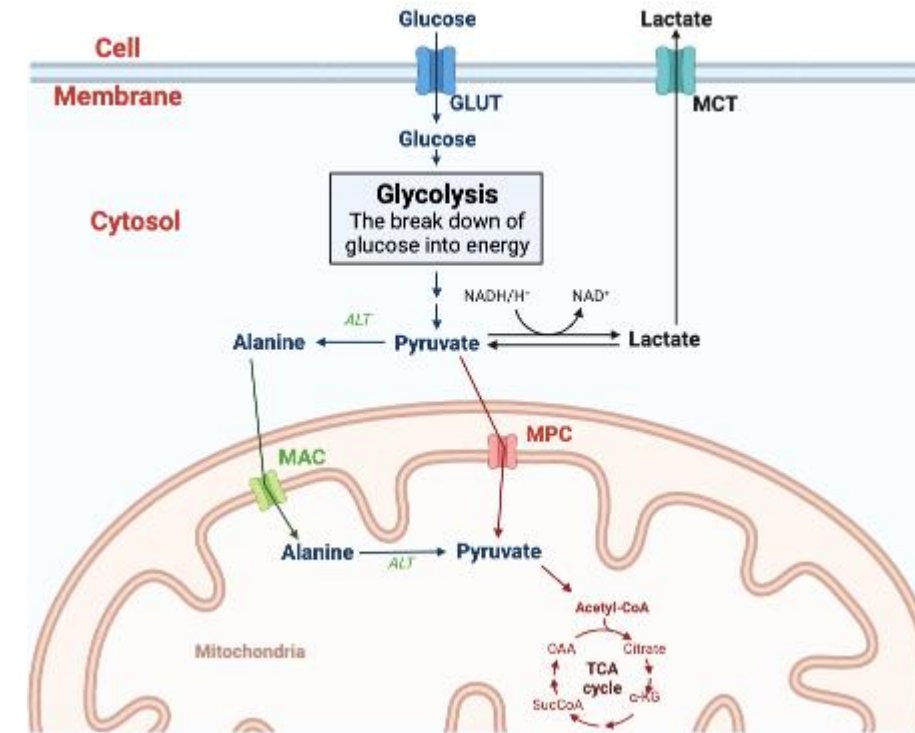


Entry of pyruvate to mitochondria

- Pyruvate is transported into mitochondria by the mitochondrial pyruvate carrier (MPC), which is made up of two main proteins called MPC1 and MPC2.
- The process of pyruvate transport into mitochondria is as follows:
- Pyruvate is produced in the cytosol as the end product of glycolysis.
- Pyruvate crosses the outer mitochondrial membrane (OMM) and enters the intermembrane space (IMS).
- Pyruvate is transported across the IMM by the MPC



- Pyruvate is oxidized in the mitochondria, where it fuels the citric acid cycle and increases oxidative phosphorylation.
- A dysfunctional MPC can lead to a variety of pathologies, including metabolic disorders, neurodegenerative diseases, and cancer