

ABSTRACT

Electron transporting proteins serve to transfer electrons between various soluble and membrane bounded enzymes and proteins in biological processes as for example respiration, photosynthesis and different kinds of energy metabolism. Electron transporting proteins occur in every living organism. The active site of electron transporting proteins contains metal ions as iron and copper, thiol or flavin group. It uses this active site for electron transfer. The redox potential is connected with electron transfer because that is a relative tendency of molecule pairs and they are able to accept or donate electrons. When the molecules have got more negative value of redox potential, then they have got better ability to donate electrons. Ferredoxins with iron-sulfur cluster and cytochromes with heme group have got the lowest redox potential of electron transporting proteins. On the contrary cupredoxins with copper center have got the highest redox potential.

Key words: cytochrome, flavodoxin, cupredoxin, ferredoxin, thioredoxin, glutaredoxin, rubredoxin