

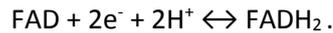
## Answer on Question #57386 - Biology - Biochemistry

### Question:

What does E in E-FAD → E-FADH<sub>2</sub> mean? Does it stand for enzymes FAD is bonded to?

### Solution

FAD is flavin adenine dinucleotide, redox cofactor which can accept or donate electrons one at a time or two at a time:



In some enzyme-catalyzed reactions the enzyme requires the coenzyme FAD which acts as the electron transporter. The enzyme is binded with FAD as a cofactor:



An example is the cleavage of prenylcysteine catalyzed by prenylcysteine lyase. The FAD is non-covalently bound to prenylcysteine lyase. The proposed mechanism for this process is shown below:

