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QUESTIONS

What are coenzymes?

Coenzymes are small molecules that cannot themselves catalyse a reaction but they can help enzymes to do so. Coenzymes are also organic non-protein molecules that loosely bind with protein molecule to form an active enzyme.

Differentiate between fat and water soluble vitamins

Fat soluble vitamins	Water soluble vitamins
i. They are fat soluble	They are water soluble
ii. They are stored in the liver	They are not stored
iii. Deficiency manifest only when stores are depleted	Deficiency manifests rapidly as there is no storage
iv. Absorption requires bile salt	Absorption is simple
v. It is not excreted	v. it is excreted
vi. Carrier proteins are present	There are no carrier proteins

Describe Niacin in relation to its coenzyme function.

Niacin is a general name for nicotinic acid and nicotinamide. The active forms of Niacin is nicotinamide adenine dinucleotide (NAD⁺) and nicotinamide adenine dinucleotide phosphate.

The two active forms of Niacin are involved in various oxidation and reduction reactions catalysed by dehydrogenase in metabolism. They are therefore involved in many metabolic pathways as coenzymes of carbohydrate, lipid and protein.