

This volume on iron-sulfur proteins includes chapters that discuss how microbes, plants, and animals synthesize these complex prosthetic groups, and why it is important to understand the chemistry and biogenesis of iron sulfur proteins. In addition to their vital importance in mitochondrial respiration, numerous iron sulfur proteins are important in maintenance of DNA integrity and in metabolic regulation and sensing. Multiple rare human diseases with different clinical presentations are caused by mutations of genes in the iron sulfur cluster biogenesis pathway. Understanding iron sulfur proteins is important for understanding a rapidly expanding group of metabolic pathways important in all kingdoms of life, and for understanding processes ranging from nitrogen fixation to human disease.



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