

1. Record Nr.	UNINA9910144011103321
Titolo	Redox biochemistry [[electronic resource] /] / edited by Ruma Banerjee ; associate editors, Donald Becker ... [et al.]
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2008
ISBN	1-281-22150-3 9786611221508 0-470-17733-0 0-470-17732-2
Descrizione fisica	1 online resource (339 p.)
Altri autori (Persone)	BanerjeeRuma
Disciplina	541/.393
Soggetti	Oxidation-reduction reaction - Physiological effect
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	REDOX BIOCHEMISTRY; CONTENTS; Contributors; List of Abbreviations; Preface; 1. Redox Metabolism and Life; 1.1. Redox Biochemistry and the Evolution of Life; 1.2. Global Redox Cycles; 1.3. Major Bioenergetic Cycles; 1.3.A. Photosynthesis; 1.3.B. Aerobic Respiration; 2. Antioxidant Molecules and Redox Cofactors; 2.1. Glutathione; 2.1.A. Biological Functions; 2.1.B. Biosynthesis; 2.1.C. Degradation; 2.1.D. Other Thiol-Based Redox Buffers; 2.2. Ascorbate; 2.2.A. Ascorbate Chemistry; 2.2.B. Ascorbate Biosynthesis; 2.2.C. Ascorbate Recycling; 2.2.D. Ascorbate Transport 2.2.E. Importance of Ascorbate in Stress and Disease 2.3. Other Antioxidants; 2.3.A. Lipid-Soluble Antioxidants; 2.3.B. Water-Soluble Antioxidants; 2.3.C. Antioxidants and Human Health; 2.4. Redox Coenzymes; 2.4.A. Flavin; 2.4.B. NAD; 2.4.C. Quinones; 2.4.D. Pterins and Molybdopterin; 2.4.E. Folic Acid; 3. Antioxidant Enzymes; 3.1. ROS-Dependent Enzymes; 3.1.A. Catalase; 3.1.B. Superoxide Dismutase; 3.1.C. Peroxiredoxins; 3.1.D. Alkyl Hydroperoxide Reductases; 3.2. The Thioredoxin System; 3.2.A. Thioredoxin; 3.2.B. Thioredoxin Reductase; 3.3. The Glutathione System 3.3.A. Glutathione Reductase 3.3.B. Glutaredoxin (Thioltransferase); 3.4. Repair Enzymes; 3.4.A. Methionine Sulfoxide Reductases; 3.4.B. DNA Repair Enzymes; 3.4.C. Sulfiredoxins; 3.5. Detoxification Enzymes; 3.5.

A. Cytochrome P450 Enzymes: Structure, Function, and Mechanism; 3.5.B. GSH Transferases; 3.6. Oxidative Folding; 3.6.A. Disulfide Bond Formation in Bacteria; 3.6.B. Disulfide Bond Formation in Eukaryotes; 3.7. Other Antioxidant Enzymes; 3.7.A. Selenoproteins; 3.7.B. Heme Oxygenase; 4. Redox Regulation of Physiological Processes
 4.1. Reactive Oxygen, Nitrogen, and Thiol-Based Signal Transduction
 4.1.A. Nitric Oxide Signaling; 4.1.B. Carbon Monoxide Signaling; 4.1.C. Superoxide and Hydrogen Peroxide; 4.1.D. Other Novel Redox Molecules; 4.2. Role of Nitric Oxide Synthases in Redox Signaling; 4.2.A. Characterization of the Nitric Oxide Synthases; 4.2.B. Regulation of Nitric Oxide Synthases by Intrinsic Elements; 4.2.C. Extrinsic Regulation of Nitric Oxide Synthases; 4.2.D. Interactions of NO with Other Proteins and Enzymes; 4.3. Redox Regulation of Genes; 4.3.A. MAP Kinase/Cell Cycle
 4.3.B. Redox Control of Gene Expression
 4.3.C. Peptide Editing and Thiol-Mediated Redox Regulation; 4.4. Redox Regulation of Apoptosis; 4.4.A. Apoptotic Pathways; 4.4.B. Reactive Oxygen Species and Apoptosis; 4.5. Metal Homeostasis; 4.5.A. Physiological Significance of Metal Metabolism; 4.5.B. Metal Uptake from the Extracellular Environment; 4.5.C. Intracellular Metal Distribution by Target-Specific Chaperones; 4.5.D. Subcellular Membrane Metal Transporters; 4.5.E. Heme and Iron-Sulfur Cluster Synthesis; 4.5.F. Cellular Storage; 4.5.G. Metal Export; 4.5.H. Regulation of Metal Metabolism
 4.5.I. Genetic Disorders in Metal Metabolism

Sommario/riassunto

This is the premier, single-source reference on redox biochemistry, a rapidly emerging field. This reference presents the basic principles and includes detailed chapters focusing on various aspects of five primary areas of redox biochemistry: antioxidant molecules and redox cofactors; antioxidant enzymes; redox regulation of physiological processes; pathological processes related to redox; and specialized methods. This is a go-to resource for professionals in pharmaceuticals, medicine, immunology, nutrition, and environmental fields and an excellent text for upper-level students.

2. Record Nr.	UNINA9910295656003321
Titolo	ICIIBMS : 2018 International Conference on Intelligent Informatics and Biomedical Sciences : 21-24 October 2018 : Bangkok, Thailand / / Institute of Electrical and Electronics Engineers
Pubbl/distr/stampa	Piscataway, New Jersey : , : Institute of Electrical and Electronics Engineers, , 2018
ISBN	1-5386-7516-1
Descrizione fisica	1 online resource (358 pages)
Disciplina	610.285
Soggetti	Medical informatics Medical sciences - Data processing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia