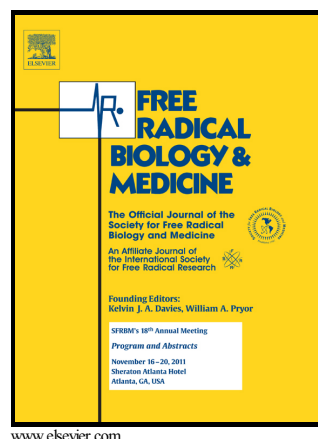


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The role of glutathione reductase and related enzymes on cellular redox homeostasis network

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Abbreviations

ROS – reactive oxygen species, GSH – reduced glutathione, GSSG – oxidised glutathione, ER – endoplasmic reticulum, γ -GCS – gamma glutamylcysteine synthetase, GGT – γ -L-glutamyl transpeptidase, DP – dipeptidase, GR – glutathione reductase, GST – glutathione S-transferase, MRP – multidrug resistance associated protein, OATP – organic anion transporting polypeptide, GPx1 – glutathione peroxidase-1, OPT – oligopeptide transporter family, FAD – flavin adenine dinucleotide, NADPH – reduced nicotinamide adenine dinucleotide phosphate, Trx – thioredoxin, TrxR – thioredoxin reductase, TGR – thioredoxin glutathione reductase, NAC – N-acetyl-L-cysteine

Abstract

In this review article we examine the role of glutathione reductase in the regulation, modulation and maintenance of cellular redox homeostasis. In the cell, glutathione

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