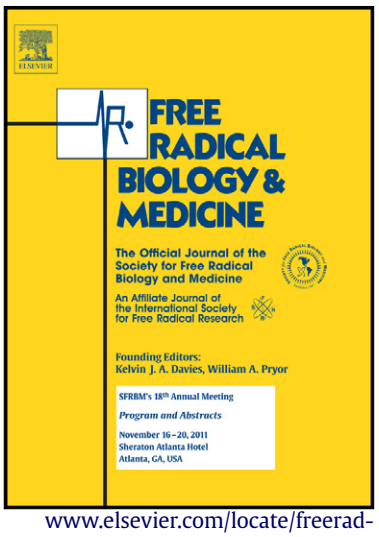

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The overexpression and nuclear translocation of Trx-1 during hypoxia confers HepG2 cells resistance to DDP and GL-V9 reverses the resistance by suppressing Trx-1/Ref-1 axis

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Abstract

Microenvironmental hypoxia renders many tumor cells capacity for drug resistance. Thioredoxin (Trx) family members play critical roles in the regulation of cellular redox homeostasis under stressed environment. In this study, we reestablished hypoxia-drug resistance (hypoxia-DR) model using HepG2 cells and discovered that the overexpression and nuclear translocation of thioredoxin-1 (Trx-1) are closely associated with this resistance through regulating metabolism from the oxidative