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O^2-(2,4-dinitrophenyl)diazeniumdiolates derivatives: Design, synthesis, cytotoxic evaluation and reversing MDR in MCF-7/ADR cells

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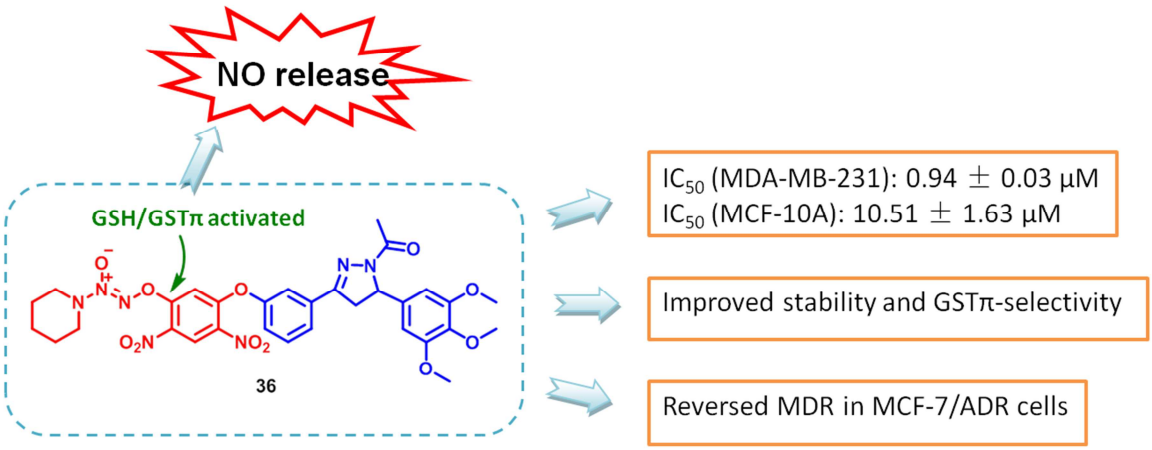
Graphical abstract



A series of O^2-(2,4-dinitrophenyl) diazeniumdiolates derivatives were designed, synthesized and antiproliferative activities evaluated as novel nitric oxide (NO)-releasing prodrugs that could be activated by glutathione S-transferases π (GSTπ). Compound **36** showed remarkably multidrug resistance reversal activity which reversed multidrug resistance of adriamycin (ADR) in MCF-7/ADR cells.