Heat Shock Proteins (HSP), HSP90, Cisplatin

The induction of HSP90 in murine erythroleukemia cells, clone F4 N, by cisplatin (DDP) was examined using indirect immunofluorescence and avidin-biotin technique, and compared with cisplatin cytotoxicity. A reverse dependence of HSP90 induction time was found on a wide range of cisplatin concentrations (0.5–10 µM), which proved to be cytostatic up to 48 h of continuous treatment. Thus, the observed induction pattern of HSP90 in F4 N cells strictly correlated with their high tolerance toward DDP. This indicates that HSP90 might be responsible, at least in part, for cisplatin resistance of F4 N cells.