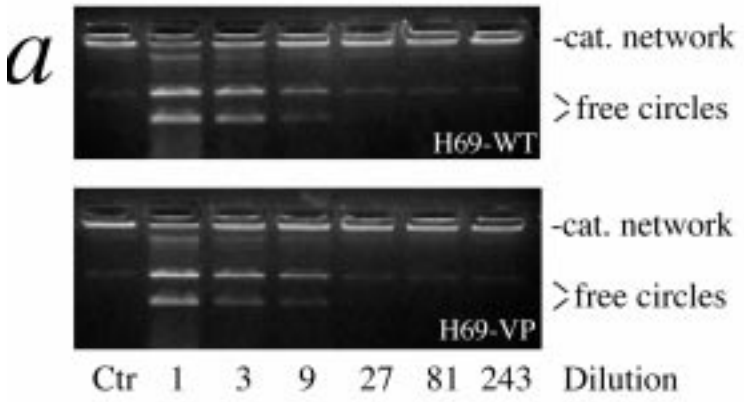
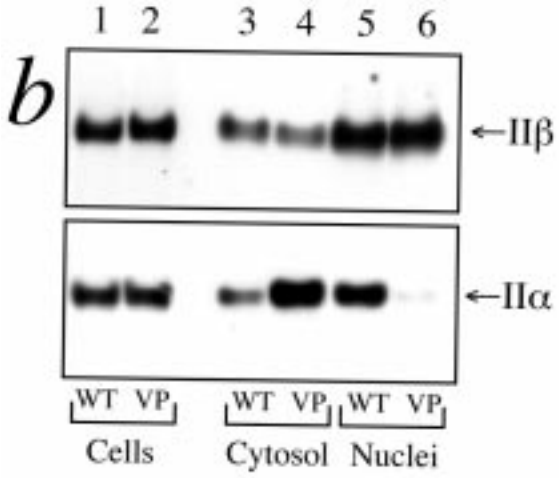
Figure 2

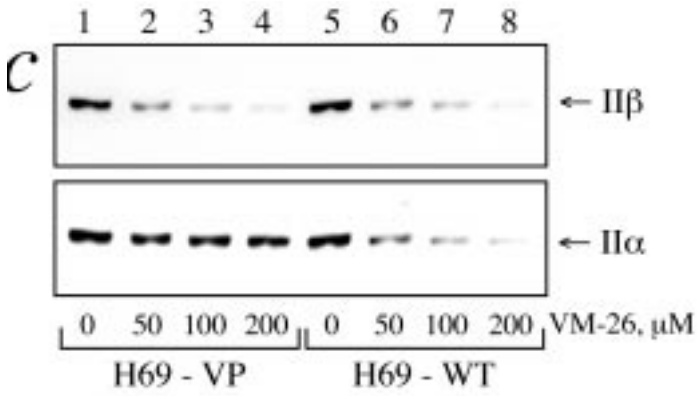
Biochemical charaterization of DNA topoisomerase IIα and IIβ in H69-WT and H69-VP.



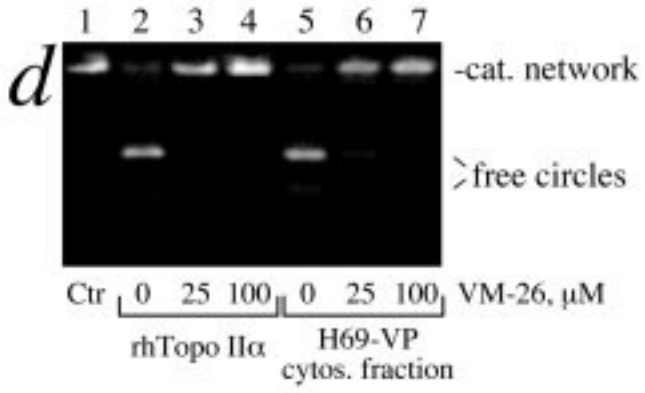
a: The catalytical activity of DNA topoisomerase II was studied by serial dilution of whole cell lysate (800 mM NaCl) of H69-WT (top) and H69-VP (bottom) using catenated (cat) DNA from kinetoplast of *Chrithida fasciculata*. Controls (crt) are without cell extract.



b: Immunoblotting of DNA topoisomerase IIα (bottom) and IIβ (top) in 800 mM NaCl extracts of whole cells lysate (lanes 1 and 2) or in the cytosolic fractions (lanes 3 and 4) or in isolated nuclei (lanes 5 and 6) of H69-WT (lanes 1, 3 and 5) and H69-VP (lanes 2, 4 and 6).



c: Immuno-band-depletion of DNA topoisomerase IIα (bottom) and IIβ (top) of H69-WT (lanes 6-8) and H69-VP (lanes 2-4) after treatment with increasing concentration of VM-26 (50, 100 and 200 μM) for 1 h at 37°C. Each lane shown the equivalent of 5 x 10^5 cells and the controls without drugs treatment are shown for H69-WT (lane 5) and for H69-VP (lane 1).



d: The catalytical activity and drugs sensitivity of cytosolic DNA topoisomerase IIα. The activity of the cytosolic fraction (cytos) of H69-VP (lane 5) or purified human recombinant topoisomerase IIα (lane 2) catenated (cat) DNA from kinetoplast of *Chrithida fasciculata*. The drug effect was measured by adding 25 μM (lanes 3 and 6) or 100 μM VM26 (lanes 4 and 7). Control (crt) is without cell extract or enzyme.