

Effects of NS1 protein of influenza A viruses in Vero cells and Hep2 cells

Abstract: Objective To explore the effects of NS1 protein of influenza A viruses on cell apoptosis of Vero cells and Hep2 cells. **Methods** Cultured Vero cells and Hep2 cells were transfected NS1 gene, express NS1 protein. Concentration of Ca^{2+} , Mitochondria membrane potential, membrane integrity and caspase family expression in cells were detected by flow cytometry and laser scanning confocal microscope. **Results** Following NS1 transfection, the viabilities of cells in treated group were significantly lower, the concentration of Ca^{2+} were higher, Mitochondria membrane potential were increased, membrane integrity were destroyed and caspase-3, caspase-9 and bcl-2 expression were increased in treated cells, significantly. **Conclusion** NS1 protein may induce apoptosis of host cells.