

Protective Effect of Saikosaponin B On Damage of Cultured Sh-sy5y Cells in Vitro

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Introduction: Saikosaponin B is one of the main ingredients of Bupleurum . Among the many effects of Bupleurum, saikosaponin B may be contributing molecules.human neuroblastoma cell line SH-SY5Y is a tumor cells of low degree of differentiation. Its cell morphology, physiology and biochemical functions similar to normal nerve cells, are widely used to study the mechanism of diseases and drug, of the nervous system.

Objective: To investigate the effect of Saikosaponin B on SH-SY5Y cells.

Methods: Cultured SH-SY5Y cells and drew cell growth curve. Then based on the cell growth curve, using hydrogen peroxide of different doses(110?120?130?140?150?160?180?200?220 μ mol/L) to treated SH-SY5Y cells. At same time, volume fraction 0.05 serum contained Saikosaponin B was added. Cultured SH-SY5Y cells were observed by morphology and tested by the MTT assay.

Results: Less than 140 μ mol/L hydrogen peroxide, SH-SY5Y cells does not be caused damage. Saikosaponin B of volume fraction 0.05 can relieve the damage of SH-SY5Y cells treated with 140 μ mol/L hydrogen peroxide, also can increase the survival of the SH-SY5Y cells.

Conclusion: Saikosaponin B can strongly protect the cultured SH-SY5Y cells from damage induced by hydrogen peroxide.

KEY WORDS: Saikosaponin B, hydrogen peroxide, SH-SY5Y cells, morphology, MTT assay