

Preparation Nanocapsules of Chitosan Modified With Selenium Extracted From the Lactobacillus Acidophilus and Their Anticancer Properties

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Abstract : This study synthesized a modified imaging of gallium@deferroxamine/folic acid/chitosan/polyaniline/polyvinyl alcohol (Ga@DFA/FA/CS/PANI/PVA). It contains Morus nigra extract by selenium nanoparticles prepared from Lactobacillus acidophilus. Using the impregnation method, Se nanoparticles were then deposited on (Ga@DFA/FA/ CS/PANI/PVA). The modified contrast agents were mixed with M. nigra extract, and investigated their antibacterial activities by applying to L929 cell lines. The influence of variable factors, including 1. surfactant, 2. solvent, 3. aqueous phase, 4. pH, 5. buffer, 6. minimum Inhibitory concentration (MIC), 7. minimum bactericidal concentration (MBC), 8. cytotoxicity on cancer cells., 9. antibiotic, 10. antibiogram, 11. release and loading, 12. the emotional effect, 13. the concentration of nanoparticles, 14. olive oil, and 15. they have investigated thermal methods. The structure and morphology of the synthesized contrast agents were characterized by zeta potential sizer analysis (ZPS), X-Ray diffraction (XRD), Fourier-transform infrared (FT-IR), energy dispersive X-ray (EDX), ultraviolet-visible (UV-Vis) spectra, and scanning electron microscope (SEM). The experimental section was conducted and monitored by response surface methods (RSM), MTT, MIC, MBC, and cancer cytotoxic conversion assay. Antibiogram testing of NCs on Pseudomonas aeruginosa bacteria was successful and obtained MIC = 2 factors with less harmful effect. All experimental sections confirmed that our synthesized particles have potent antioxidant properties. Antibiogram testing revealed that NPS could kill P. aeruginosa and P. aeruginosa. A variety of synthetic conditions were done by diffusion emulsion method by varying parameters, the optimum state of DFA release Ga@DFA/FA/CS/PANI/PVA NPs (6 ml) with pH = 5.5, time = 3 h, NCs and DFA (3 mg), and achieved buffer (20 ml). DFA in Ga@DFA/FA/ CS/PANI/PVA was released and showed an absorption peak at 378 nm by applying a 300-rpm magnetic rate. In this report, Ga decreased the harmful effect on the human body.

Keywords : nanocapsules, technology, biology, nano

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