

### عنوان مقاله:

Antileishmanial and antibacterial activities of biologically synthesized silver nanoparticles using Alcea rosea extract ((AR-AgNPs

## محل انتشار:

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#### خلاصه مقاله:

Recent developments in nanotechnology lead to draw scientist's interest in green synthesis nanoparticles because of their importance in all fields of sciences. This paper is an overview of Ag nanoparticles biosynthesis (AgNPs) by aerial part of Alcea rosea extract. Synthesis procedures were described, with no stabilizers or surfactants. The synthesized AR@AgNPs were characterized using scanning electron microscopy (SEM), energy-dispersive X-ray spectroscopy (EDS), X-ray diffraction analysis (XRD), and UV-Vis analysis. The UV-Vis spectrum of AR@AgNPs shown a characteristic surface plasmon resonance (SPR) peak at FYA nm. Scanning electron microscope revealed spherical shaped with a diameter range of 10-170 nm. Energy dispersive X-ray spectroscopy analysis demonstrated the peak in silver region confirming presence of elemental silver. Evaluation of the antibacterial and antileishmanial activity of biosynthesized silver nanoparticles was performed. AR@AgNPs exhibit effective antibacterial activity against seven ATCC strains of bacteria and eight strains of drug-resistant bacteria. Also, their activity against leishmaniasis was .studied on both promastigotes and amastigotes

# کلمات کلیدی:

Green synthesis, Ag nanoparticles, Alcea rosea, antileishmanial, Antibacterial

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