



## Evaluation of *Echinococcus granulosus* DNA extracts from protoscoles and germinal layer in sheep

Jenan M. Khalaf<sup>1</sup> and Ali F. Hassan<sup>1\*</sup>

<sup>1</sup>Dept. of Vet Internal and Preventive Medicine / College of Veterinary Medicine/ University of Baghdad, Iraq

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**\*Corresponding author:**

**Email address:**

[ali\\_alsaade30@yahoo.com](mailto:ali_alsaade30@yahoo.com)

### Abstract

**Cystic echinococcosis (CE)** caused by the metacestode of the dog tapeworm *Echinococcus spp.*, is a global zoonotic infection. It

is economically important and constitutes a major threat to public health in many countries. Strains characterization is essential for the establishment of a preventive and control strategy in every endemic area. This study was aimed to compare between DNA extracts from Protoscolecocytes and germinal layer of *E. granulosus* strain in infected sheep. Thirty, fresh fertile hydatid cysts from sheep's infected organs were collected from different abattoirs of Baghdad, Iraq. All cysts were examined by light microscope to investigate the protoscolecocytes viability. Protoscolecocytes and germinal layer were separated and DNA was extracted. Efficiency of the DNA extract was determined by degree of its success in PCR amplification. Genomic DNA mini kit and primers forward JB3 / reverse JB4 were used to extract DNA. The results showed that DNA extract from Protoscolecocytes were more visible and more concentrated than the germinal layers DNA and appeared at 448bp on electrophoresis. In conclusion, the result of this study revealed that Protoscolecocytes DNA was differed and better than germinal layer DNA.

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