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ORIGINAL ARTICLE

GENETIC VARIATION AMONG SOME *SCLEROTINIA SCLEROTIORUM* ISOLATES CAUSING WHITE MOLD DISEASE IN EGGPLANTS (*SOLANUM MELONGENA*)

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Abstract: This study was carried out to isolate 19 isolates of the fungus *Sclerotinia sclerotiorum* from infected eggplants (*Solanum melongena*) grown in plastic houses located in some desert farms in Karbala and Najaf governorates, Iraq. These *Sclerotinia sclerotiorum* isolates were molecularly identified by the polymerase chain reaction technique (PCR) and determination of the nucleotide sequences of PCR products obtained from those isolates by amplifying with the primer pair ITS1 and ITS4. Results of the nucleotide sequence analysis, generated from the PCR-amplified products, using Basic Local Alignment Search Tool (BLAST) program revealed that all of the diagnosed fungal isolates belong to the fungus *S. sclerotiorum*. It was also observed by the comparison of the nucleotide sequences of the isolates that there is a 100% genetic similarity among most of the *S. sclerotiorum* isolates diagnosed in the current study, as well as with the other isolates formerly registered at NCBI (National Center for Biotechnology Information). The results also demonstrated that there were three isolates of *S. sclerotiorum* (3, 7 and 14) among the other isolates identified in this study were not previously recorded at NCBI. Therefore, they were recorded under the GenBank accession numbers: OM614596, OM614595 and OM614599, respectively.

***Key words*:** *Solanum melongena*, *Sclerotinia sclerotiorum* isolate, Genetic variation, Polymerase chain reaction technique.

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