



# Protein patterns in relation to virulence of *Sclerotium cepivorum* Berk ., the incitant of white rot of garlic .

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## Abstract:

**ABSTRACT:** Six isolates of *Sclerotium cepivorum* Berk were isolated from naturally infected garlic plants collected from different localities of El-minya, Assiut and Sohag Governorates. Pathogenicity tests indicated that isolates No.2, 3 and 6 were highly pathogenic to garlic as compared with isolates No. 1, 4 and 5. Protein of six isolates of *S. cepivorum* was compared by polyacrylamide gel electrophoresis (PAGE) and sodium dodecyl sulfate- polyacrylamide gel electrophoresis (SDS-PAGE). Protein profiles separated by PAGE, isolate No. 1 showed the highest number of bands (20 bands), while isolate No. 4 showed the lowest number of bands (15 bands). The number of bands of other isolates was 16 or 17 bands. Protein profiles separated by SDS-PAGE, isolate No. 5 showed the highest number of bands (19 bands) while isolate No. 3 showed the lowest number of bands (6 bands). The other isolates showed a number of bands ranged from 13 to 17 bands. On the basis of electrophoretic dissimilarities among protein banding patterns, isolates were grouped by cluster analysis and the results were expressed as phenograms. Grouping the isolates based on PAGE analysis was associated with geographic of isolates, however, grouping the isolates based on SDS-PAGE was associated with virulence of isolates.

## Keywords:

Isolates, Protein Profile, *Sclerotium cepivorum*, PAGE, Bands, electrophoretic dissimilarities, Phenograms, virulence.

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