



**NANO-PARTICLES CONSTRUCTED FROM *CHAETOMIUM COCHLIODES* CTh05
AGAINST *MAGNAPORTHE ORYZAE* CAUSING RICE BLAST**

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Received 2nd Nov. 2017; Revised 2nd Dec. 2017; Accepted 28th Dec. 2017; Available online 1st May 2018

ABSTRACT

The effective isolate of *Chaetomium cochliodes* CTh05 actively against *Magnaporthe oryzae* isolate PO1 causing rice blast were tested on rice var RD57. The symptoms of blast on rice var RD57 was isolated and confirmed by morphological and molecular phylogeny which identified as *Magnaporthe oryzae*. Morphology and phylogenic identification was also confirmed *C. cochliodes* CTh05. *Magnaporthe oryzae* isolate PO1 proved to be aggressive isolate to cause blast of rice var. Rd57. Bi-culture test proved that *C. cochliodes* CTh05 can be suppressed the growth of *M. oryzae* P01. The fungal metabolites of *C. cochliodes* CTh05 (CCoE, CCoM and CCoH) expressed antifungal activity against *M. oryzae* isolate PO1 (rice blast) which inhibited spore production, the ED₅₀ of 85, 144, 374 ppm, respectively. Nano-particles derived from *C. cochliodes* CTh05 (nanoCCoE, nanoCCoM and nanoCCoH) gave significantly antifungal activity against *M. oryzae* PO1 at the ED₅₀ values of 9,