



## Determination of Haemolytic and Nonhaemolytic Genes Profiles of *Bacillus cereus* Strains Isolated from fried Rice samples by Polymerase Chain Reaction (PCR) technique

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**Abstract :** There are two types of sicknesses which are caused by *B. cereus* in human beings. diarrhoeal and emetic types. In these study the prevalence of *B. cereus* was conducted on cooked rice samples and the *B. cereus* isolates were examined there enterotoxigenic gene. Those fried rice samples were purchased from several restaurants in the area of Bangi, Kajang and Universiti Kebangsaan Malaysia, Selangor. A total of 70 samples have been analyzed for *B. cereus* contamination has been formed between  $1.2 \times 10^4$  to  $1.6 \times 10^6$  cfu/g cooked of 110 colonies of tentative *B. cereus* have been examined onto mannitol egg yolk polymyxin agar and Chromogenic *Bacillus cereus* Agar, and 35 colonies have been detected as *B. cereus* using biochemical test and partial sequence of 16S r DNA sequences analysis. The *B. cereus* isolates that are BC1 to BC35 have been characterized for hemolytic enterotoxin (HBL complex encoding gene *hblB*), and (non-haemolytic enterotoxin encoding gene *nheA*), 4 isolates have been found positive towards gene *hblB*, and 12 isolates were found positive towards *nheA* gene. Thus, in the presence study it is evidence that the PCR analysis targeting enterotoxin of *hblB* and *nheA* genes are suitable and useful in detecting enterotoxic *B. cereus* in fried rice contaminated samples.

**Keywords :** haemolytic, *Bacillus cereus*, isolated, fried rice, PCR technique.

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