Identification of Parasporin Genes in Vietnamese Isolates of *Bacillus thuringiensis*

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Four genes encoding parasporins, cytotoxins preferentially killing human cancer cells in vitro, were isolated from four Vietnamese strains of Bacillus thuringiensis. Nucleotide sequence analysis revealed that: (1) three genes fall into the two known classes, ps1Aa and ps1Ab, and (2) another one belongs to ps1Ac, a novel gene class established in this study. Upon proteolytic activation, parasporal protein of the organism with ps1Ac exhibited strong cytocidal activity against human cancer cells, HeLa and Hep G2, but not to non-cancer normal cells, UtSMC and HC.

Key words: Bacillus thuringiensis, Parasporin, ps1Ac