

# Cloning and Expression of a *Cotesia plutellae* Bracovirus Gene, ELP

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A genome project has been launched and aims to sequence total genome of *Cotesia plutellae* bracovirus. On this process, several open reading frames (ORFs) have been identified. This study was intended to clone and express an EP1-like protein (ELP) gene, called 'ELP'. ELP ORF consists of 729 bp encoded 242 amino acid sequence. Its estimated protein size is 30,000 Da. A reverse transcriptase-polymerase chain reaction (RT-PCR) produced the corresponding product from cDNA of parasitized diamondback moth, *Plutella xylostella*. This PCR project was cloned into pBAD-TOPO (Invitrogen<sup>®</sup>) and over-expressed in response to an inducer, L-arabinose. The bacterial cell extract was subjected to Ni<sup>+</sup>-affinity column. The purified protein was confirmed by an immunoblotting with V5 antibody and its apparent molecular weight was about 32 kDa. ELP expression in parasitized *Plutella xylostella* was measured by real-time RT-PCR and indicate late expression pattern during parasitization.

**Key words:** *Plutella xylostella*, *Cotesia plutellae*, CpBV, Polydnavirus, RT-PCR, expression, real-time RT-PCR