

Molecular Analysis of Lysozyme Isolated from the Beet Armyworm, *Spodoptera exigua*

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Lysozyme (Lyz) was extracted and analyzed from the beet armyworm, *Spodoptera exigua*. Different developmental stages and tissues were used for extracting Se-Lyz. Different antigenic agents (LPS, laminarin, *Escherichia coli*, and *Enterococcus faecalis*) were compared in elevation of lysozyme activity of the fifth instar larvae. Gram-positive bacteria induced Se-Lyz activity higher than did gram-negative bacteria. Laminarin-injected larvae were used for extracting enzyme and mRNA of Se-Lyz. Apparent molecular weight of Se-Lyz was measured as 14 kDa. Using a nested RT-PCR with degenerate primers based on conserved regions (NKNGSRD and YGLYQIN), Se-Lyz was cloned into pGEM cloning vector.