Expression of Ac-PK2 protein from AcMNPV improved the progeny virus production via regulation of energy metabolism and protein synthesis

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Fig. S1

Fig. S1 Transcription expression analysis of *pk2* gene. (a) Transcription level analysis of *pk2* gene in AcMNPV-infected group. (b) Transcription level analysis of *pk2* gene in AcMNPV-PK2-EGFP-infected group. We chose *β-actin* gene as reference gene. Calculated method was $2^{-\Delta\Delta CT}$. 
Fig S2

Protein expression analysis of infected Sf9 cells. (a) The content of total
protein analysis of Sf9 cells infected with AcMNPV or AcMNPV-PK2-EGFP. (b)

The content of total protein analysis of Sf9 cells co-infected with AcMNPV-Renilla-RFP and AcMNPV-PK2-EGFP or AcMNPV. The relative activity of renilla luciferase in two groups was shown. Statistical significance was determined using Student’s t-test. *, P < 0.05; **, P < 0.05.

Fig S3
**Fig S3** Western blot analysis of eIF2α phosphorylation in midgut tissue of Spodostera exigua larvae infected with AcMNPV, AcMNPV-PK2-EGFP, AcMNPV-BmK IT, and AcMNPV-PK2-EGFP+AcMNPV-BmK IT. The histogram was the relative expression quantity of eIF2α phosphorylation. (*, P<0.05; **, P<0.01).
| Primer name      | Sequence                                      |
|-----------------|-----------------------------------------------|
| pk2 F           | 5’-ATACCCGGGATGAAACCCGAAATT-3’                |
| pk2 R           | 5’-ATCCTCGAGCTAGTTTTTTAGAAGACGTTG-3’          |
| Renilla F       | 5’-ATACCCGGGATGACTTCGAAAGTTATGA-3’           |
| Renilla R       | 5’-ATCCTCGAGTTGTTCATTTTTTGAGAACTCG-3’        |
| pk2 F (qPCR)    | 5’-CTTTCAACAGCCATTCAGCA-3’                   |
| pk2 R (qPCR)    | 5’-CGGCAAGTTATCCCAAGG-3’                     |
| β-actin F       | 5’-AAGGCTAACCCTGAGAAGATGAC-3’                |
| β-actin R       | 5’-GATTGGGACAGTGTTGGGAGAC-3’                 |