

## Supplementary Materials:

Supporting materials: 1 Figure and 1 Table.

**Table S1** was used to point to **Section 3.1**.

**Fig. S1** was used to point to **Section 3.2**, **Fig. S2** was the raw gel electrophoresis image of Fig.4,

**Fig. S3-S5** were raw gel electrophoresis images of Fig.5.

**Table S1** The nucleic acid sequence and amino acid sequence of *Lpeg14265*

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1	ATG GAT TAT CAA ATA ACG CAG GCC AAT CAG CCC TTG ATG CCG GCA
1	Met Asp Tyr Gln Ile Thr Gln Ala Asn Gln Pro Leu Met Pro Ala
46	TAC TTT CAG GGG CGT TGG GCG GTC AAG CAA ATT GCG GAT CGA GAC
16	Tyr Phe Gln Gly Arg Trp Ala Val Lys Gln Ile Ala Asp Arg Asp
91	GTG ATG TAT AGC ACT AAT TTG GGT GCT GAA ATC GAT TTT CAA GTC
31	Val Met Tyr Ser Thr Asn Leu Gly Ala Glu Ile Asp Phe Gln Val
136	ACT GAT GCT AGT TTT GTG CGG TTG ACA TTC TTG CCG TTG GCG TAT
46	Thr Asp Ala Ser Phe Val Arg Leu Thr Phe Leu Pro Leu Ala Tyr
181	GAG CTA CCG AGT TGG GTG GCG ATC CAG ATT GAT GGC TTG CCT TTT
61	Glu Leu Pro Ser Trp Val Ala Ile Gln Ile Asp Gly Leu Pro Phe
226	CAA CGG CAG GCG GTG ACG AAT GAC CCC CTA TGG TTG ACA CTG GAT
76	Gln Arg Gln Ala Val Thr Asn Asp Pro Leu Trp Leu Thr Leu Asp
271	GGT CGG CCT CAC GTG GTA CGG GTA GTT TTG AGT GGT AAT ACT GAT
91	Gly Arg Pro His Val Val Arg Val Val Leu Ser Gly Asn Thr Asp
316	GAG GAC CGT GTG TGG GAT GGC AAT CAA GGT TTT ACA GTG AAA GAC
121	Glu Asp Arg Val Trp Asp Gly Asn Gln Gly Phe Thr Val Lys Asp
406	CTG ACG ACA GAT GGT GAG TTA CAG CCA GTT CGG TTA GGC CGA CAC
136	Leu Thr Thr Asp Gly Glu Leu Gln Pro Val Arg Leu Gly Arg His
451	AGT GTG ACG TGG ATT GGG GAT TCA CTG ACG GCC GGC TGC TGG GTC
151	Ser Val Thr Trp Ile Gly Asp Ser Leu Thr Ala Gly Cys Trp Val

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496 ATG GGT AAG AAC CCT GCC GAA GAT TAT CGC GCG GAA GCC AAC TAt  
166 Met Gly Lys Asn Pro Ala Glu Asp Tyr Arg Ala Glu Ala Asn Tyr

541 GCG GCG GTT GCG AGT GAC TTG TTG AAT GCA CGG AAT GTC CGC ATT  
181 Ala Ala Val ALeua Ser Asp Leu Leu Asn Ala Arg Asn Val Arg Ile

586 GCT TAT AGT GCC GTT GGT CTC AGT AAA CCA GGA ACT GGT GGC GTA  
196 Ala Tyr Ser Ala Val Gly Leu Ser Lys Pro Gly Thr Gly Gly Val

631 CCG GTA CTG CCG GAG GTT TTA ACA GCC GTG GAT AGT AAA ACG ACG  
211 Pro Val Leu Pro Glu Val Leu Thr Ala Val Asp Ser Lys Thr Thr

676 TGG CAA CCA GTA CCC ACG GAT TTA GTT GTG ATT AAT GTT GGT ACT  
226 Trp Gln Pro Val Pro Thr Asp Leu Val Val Ile Asn Val Gly Thr

721 AAT GAT CGG CAT ACG GAT GAT ACG ACG TTC ACG GTA GTT TTG CGC  
241 Asn Asp Arg His Thr Asp Asp Thr Thr Phe Thr Val Val Leu Arg

766 CGC TTC CTT AAT CAG GTG CAG ACG CTT TAC CCG AAT AGC CGG CTT  
256 Arg Phe Leu Asn Gln Val Gln Thr Leu Tyr Pro Asn Ser Arg Leu

811 GCT GTA ATG ATC CCG TTT AAT CAG AAT TTT GCG GCG ATT ATT CGC  
271 Ala Val Met Ile Pro Phe Asn Gln Asn Phe Ala Ala Ile Ile Arg

856 GCG GTC GTG GCC GAA TTT ATG CAA TTG CAA CTC ATT GAA ACG GCT  
286 Ala Val Val Ala Glu Phe Met Gln Leu Gln Leu Ile Glu Thr Ala

901 ACT TGG CAA CTC AGT ACC ACG GAC GGG GTG CAT TTA GAT TTA GCT  
301 Thr Trp Gln Leu Ser Thr Thr Asp Gly Val His Leu Asp Leu Ala

946 GGC TCC CGG ATG GCG GGC GAA TTA ACA GCA CAA GCG TTG CGG ACA  
316 Gly Ser Arg Met Ala Gly Glu Leu Thr Ala Gln Ala Leu Arg Thr

991 CAG TAT CCA GAT GTT TTT AAA TCG TGA  
331 Gln Tyr Pro Asp Val Phe Lys Ser -

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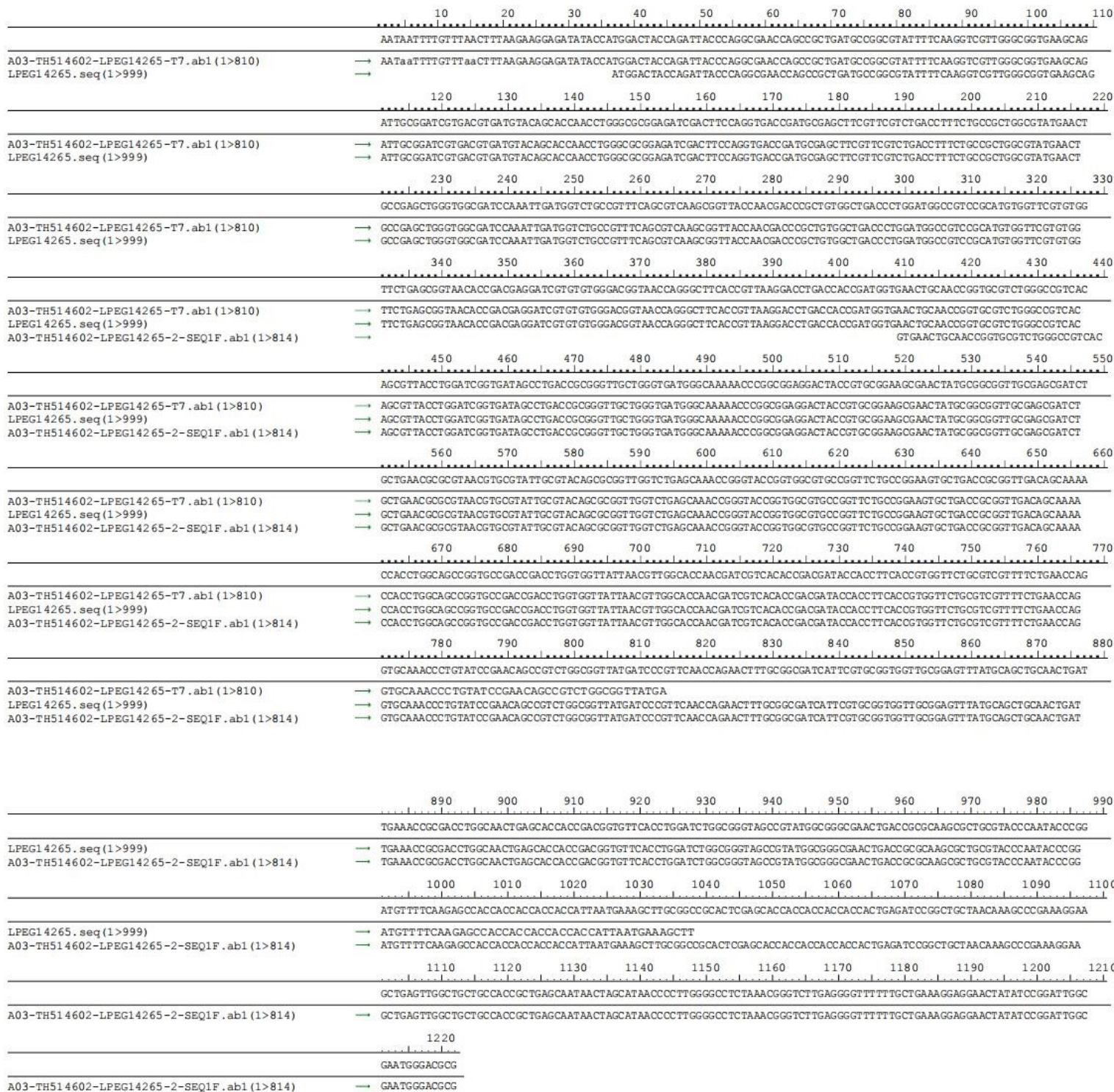


Fig. S1. Sequencing verification of the gene fragment of the digested plasmid.

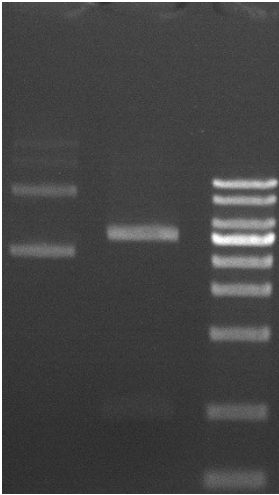


Fig. S2. The raw gel image of Fig.4. (Gel electrophoresis of restriction products of recombinant plasmid pET 28a-Lpeg14265).

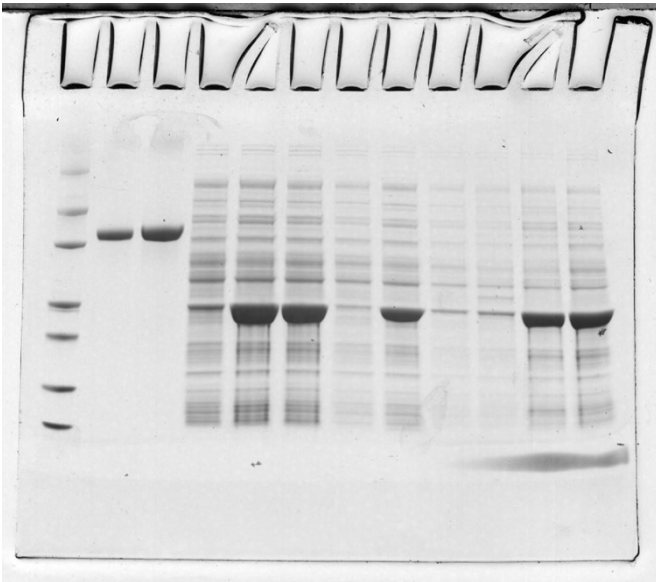


Fig. S3. The raw gel image of Fig.5 A. (SDS-PAGE analysis for the unpurified LPEG14265).

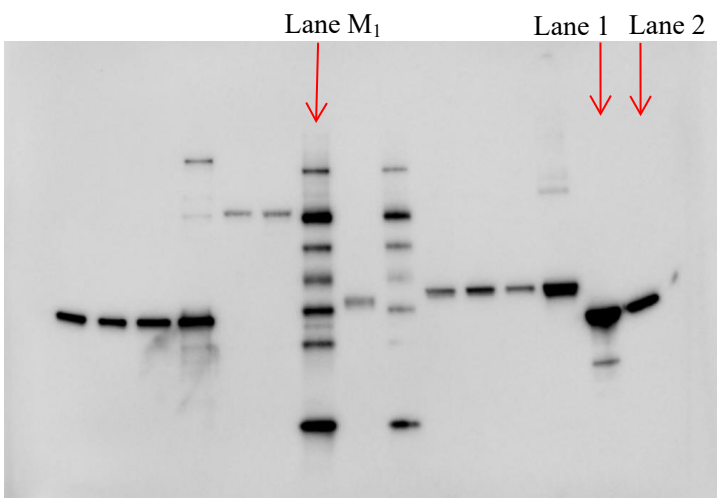


Fig. S4. The raw gel image of Fig.5 B. (Western-blot analysis of unpurified LPEG14265). Other lanes represent other samples and standards.

Lane M<sub>1</sub> Lane 1

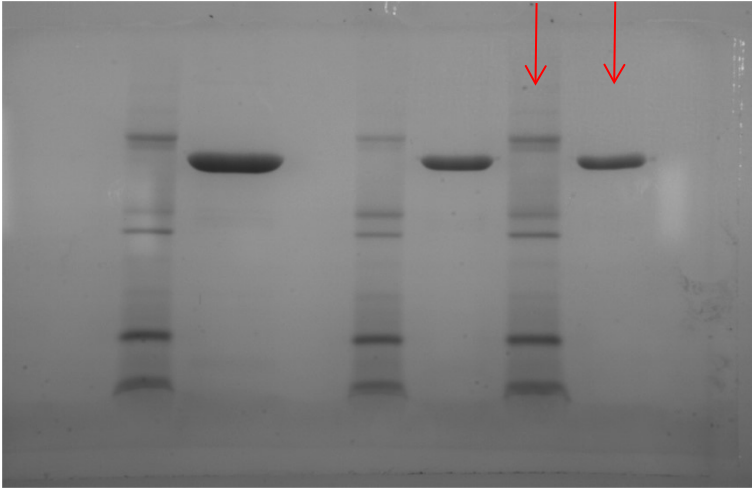


Fig. S5. The raw gel image of Fig.5 C. (SDS-PAGE analysis of the purified LPEG14265). Other lanes represent the purified protein of different concentrations.