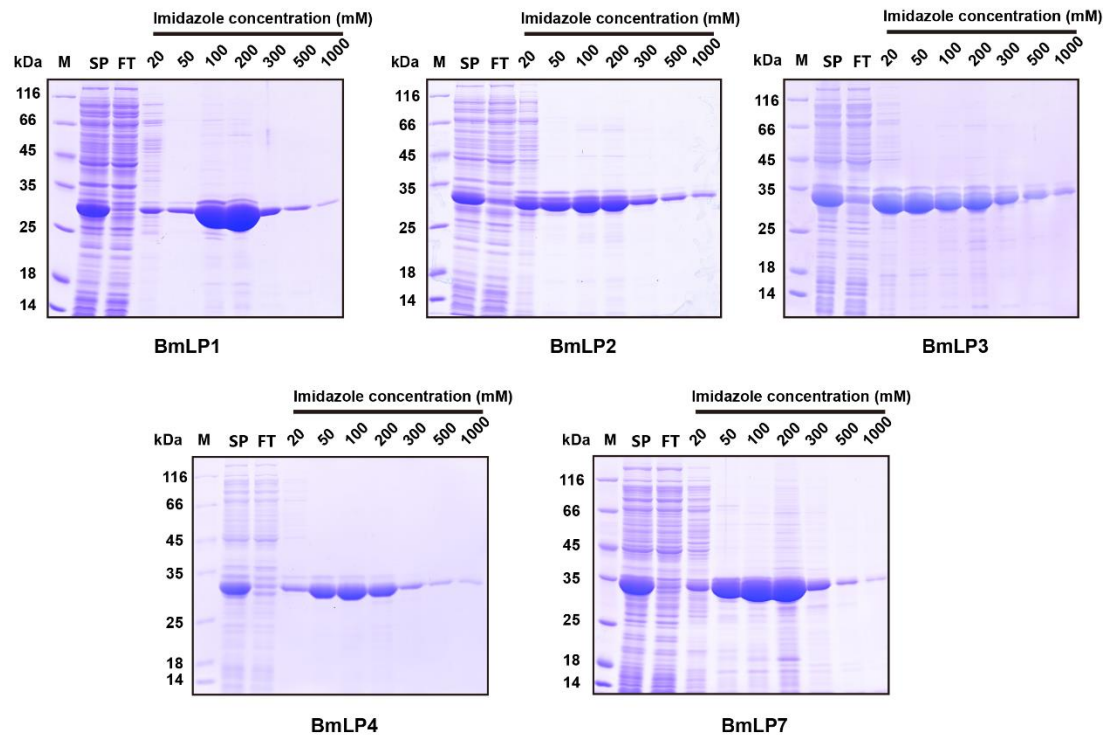
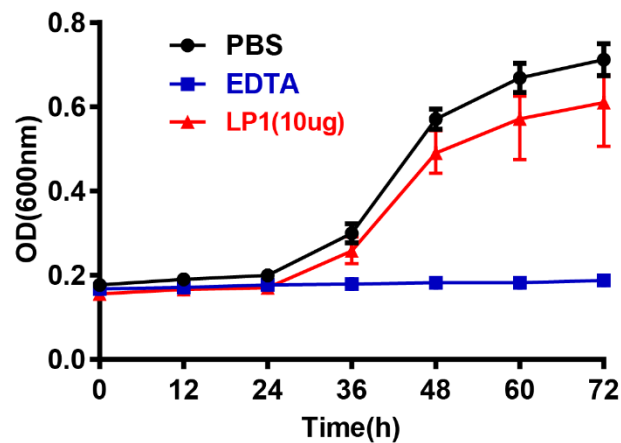


**Figure S1**



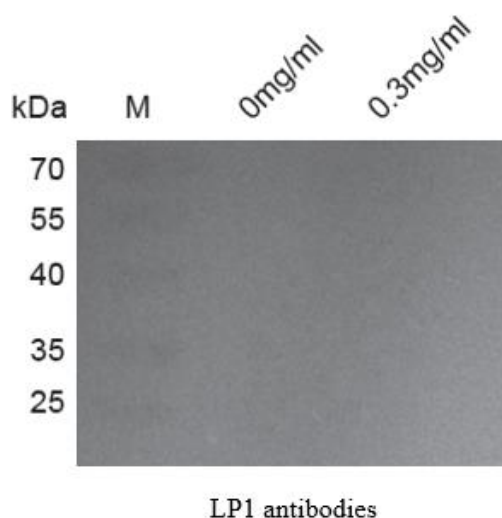
**Figure S1.** Recombinant 30K proteins were purified by NTA agarose affinity chromatography with a stepwise imidazole gradient. M: molecular weight marker; SP: soluble protein; FT: flow-through fraction.

**Figure S2**



**Figure S2.** Antifungal activity of BmLP1 was performed by detecting the growth curve. 96-well plates were filled with 300 $\mu$ L of potato liquid medium containing 10 $\mu$ g BmLP1 and *Candida albicans* at a final concentration of  $1 \times 10^5$  cells. 96-well plates were incubated at 30  $^{\circ}$ C, and fungal growth was observed

by monitoring the absorbance at 600 nm after culturing for 0, 12, 24, 36, and 48 h. Vertical bars represent the mean  $\pm$  SE (n = 3).



**Figure S3.** Binding of BmLP1 to Hela cells revealed using western blotting. 0.3mg/ml concentrations of purified proteins in DMEM medium were incubated with Hela cells for 2 h at room temperature, washed four times with PBS after trypsin digestion, and Hela cell proteins were extracted using RIPA. BmLP1 was detected using BmLP1 specific polyclonal antibodies.

**Table S1.** Primers used in this study. F: Forward primer; R: Reverse primer; The BmlpX-F/R for protein expression; The BmlpX qPCR-F/R for RT-qPCR.

Primers	Sequence (5'-3')
<i>Bmlp1</i> -F	TACTTCCAATCCATGACACTTGCACCAAGAACTGA
<i>Bmlp1</i> -R	TATCCACCTTTACTGTTAGTAGGGGACGATGTACC
<i>Bmlp2</i> -F	TACTTCCAATCCATGGGCGTCGTGGAACATATCC
<i>Bmlp2</i> -R	TATCCACCTTTACTGTTAGAAAGGTGTAATGAACC
<i>Bmlp3</i> -F	TACTTCCAATCCATGGACGTCCCTAACGACATTCT
<i>Bmlp3</i> -R	TATCCACCTTTACTGTTAGAAAGCCTTTATACCCC
<i>Bmlp4</i> -F	TACTTCCAATCCATGGGCGTCACTGAAATGTCCG
<i>Bmlp4</i> -R	TATCCACCTTTACTGCTAGAAAGGTGTAACGAACC
<i>Bmlp7</i> -F	TACTTCCAATCCATGGCAGATTCCGACGTCCCT
<i>Bmlp7</i> -R	TATCCACCTTTACTGTTAAAATGCCTTAACACCCC
<i>Bmlp1</i> qPCR-F	TGTTATCGAGCTTCAGGT
<i>Bmlp1</i> qPCR-R	CCCCATCCAGTTTAGAG
<i>Bmlp2</i> qPCR-F	AGCACCAGGGAGCAAT
<i>Bmlp2</i> qPCR-R	TCACCGTCGTGTCCAA
<i>Bmlp3</i> qPCR-F	GAGGAGAAGAAGAGCGAAGT
<i>Bmlp3</i> qPCR-R	GCCCTGGAGCCAAAGT
<i>Bmlp4</i> qPCR-F	ACACCACCAGGGAGCA
<i>Bmlp4</i> qPCR-R	TGTAACGAACCAGGAGAAG
<i>Bmlp7</i> qPCR-F	GGAGAAGAAGAGCGAAGT
<i>Bmlp7</i> qPCR-R	TGGAGCCAAAGTTGATAG