

Yassine H, Fig. S1

**Fig. S1.** *CLIPA2* kd mosquitoes are more tolerant to natural *B. bassiana* infections. *LacZ*, and *CLIPA2* kd adult female *A. gambiae* mosquitoes were challenged with *B. bassiana* (strain 80.2) by spraying mosquitoes with a suspension of 1 x  $10^8$  conidia/ml. Dead mosquitoes were counted daily over the indicated period. Graphs represent percent survival as calculated by the Kaplan-Meier method for two representative experiments. Statistical significance was calculated by the log rank test. Survival curves were considered to be significantly different if P < 0.05.

CLIPA2-G3 CLIPA2-Pest	MRERWCFAMDRIVLVALVAGCLLVAVAAQADYIQQEQCVTASNRAGYCMT MRERWCFAMDRIVLVALVAGCLLVAVAAQADYIQQEQCVTASNRAGYCTT ***********************************
CLIPA2-G3 CLIPA2-Pest	KAECPDQEQVDLRAATCSDATHYCCPDRSEQLPSRNRPKLLTQCDSNRGY KAECPDQEQLDLRAATCSDATHYCCPDRSEQLPSRNRPKLLTQCDSNRGY ******** ****************************
CLIPA2-G3 CLIPA2-Pest	CVKGDACSVRTFRLRSNRCPAYEEVCCPKSAFPEEFHATQVAKHDLSIGA CVKGDACSVRTFRLRSNRCPAYEEVCCPKNAFPEEFHATQ *******************************
CLIPA2-G3 CLIPA2-Pest	TTSTTSTTTTTTTTTTTTTTTTTTTTTPNPVGESDQILEIQASTTPVSAT
CLIPA2-G3 CLIPA2-Pest	TANSLGTSLDAQSSEGTGASEPTKLPIPLRPITPDQQTVESSGVNNTTDSTVESSGVNNTTDS ***********************************
CLIPA2-G3 CLIPA2-Pest	IEKSAKPTTNTSDAQLELTSSSESNDLVTSIIDTALVDDNSLQETDTTTI IEKSAKPTTNTSDAQLELTSSSESNDLVTSIIDTALVDDNSLQETDTTTI *********************************
CLIPA2-G3 CLIPA2-Pest	PVIPPNAADPPPTPALTAQFTPESFSYQDCGQLNLNGVVQRTINEDFRAE PVIPPNAADPPPTPALTAQFTPESFSYQDCGQLNLNGVVQRTINEDFRAE ************************************
CLIPA2-G3 CLIPA2-Pest	YGEFPWMVALFQLPEQRYCCNGALIDPKAILTTAHCVTNCGGRAANIMVR YGEFPWMVALFQLPEQRYCCNGALIDPKAILTTAHCVTNCGGRAANIMVR ************************************
CLIPA2-G3 CLIPA2-Pest	FGEWNMSSTHEMAIPREDIGVKSVHQHPRYSPSALLNNIAVLELAHPVQY FGEWNMSSTHEMAIPREDIGVKSVHQHPRYSPSALLNNIAVLELAHPVQY ************************************
CLIPA2-G3 CLIPA2-Pest	QATIQPVCLPSANQPLRAMENMIATGWGRVMEENAPPTQILKRLDLQRME QATIQPVCLPSANQPLRAMENMIATGWGRVMEENAPPTQILKRLDLQRME ************************************
CLIPA2-G3 CLIPA2-Pest	PSICREALRRVQRPYPFILDSSFVCSTTNHCDQERPCDGDAGAPVVVELP PSICREALRRVRRPYPFILDSSFVCSTTNHGDQERPCDGDAGAPVVVELP ************************************
CLIPA2-G3 CLIPA2-Pest	GTTNRYYLHGLVSWGYGCHQKQIPYTVLTKVVHFREWIDRIVLGFKKKVK GTTNRYYLHGLVSWGYGCHQKQIPYTVLTKVVHFREWIDRIVLGFKKKVK *********************************
CLIPA2-G3 CLIPA2-Pest	KGHSKQRE (1-608) KGHSKQRE (1-511) ******

**Fig. S2.** Alignment of CLIPA2 proteins sequences from the PEST and G3 strains. The predicted CLIPA2 protein sequence of the PEST strain was aligned with that corresponding to the sequenced G3 cDNA using T-Coffee multiple sequence alignment tool. G3 CLIPA2 contains a region of 97 amino acids (delimited by arrows) containing a stretch of threonines (shown in a rectangle) which is absent from the PEST CLIPA2 sequence since it was mispredicted to be encoded by an intron. Further, the genomic sequence encoding this region is supported by mRNA-seq data in VectorBase (<a href="www.vectorbase.org">www.vectorbase.org</a>) suggesting that it is indeed part of the coding sequence. The complete CLIPA2 cDNA sequence from G3 strain is available in GenBank under accession number KF955283.