## **Supplementary Information for**

#### A Mesh-Duox pathway regulates homeostasis in the insect gut

Xiaoping Xiao<sup>#</sup>, Lijuan Yang<sup>#</sup>, Xiaojing Pang<sup>#</sup>, Rudian Zhang, Yibin Zhu, Penghua Wang, Guanjun Gao<sup>\*</sup> and Gong Cheng<sup>\*</sup>

\* Address correspondence to:

Gong Cheng Ph.D., School of Medicine, Tsinghua University, Beijing, P.R. China, 100084.

Phone: (+86)-10-62788494; Fax: (+86)-10-62788494; E-mail:

gongcheng@mail.tsinghua.edu.cn

Guanjun Gao Ph.D., School of Life Science, Tsinghua University, Beijing, P.R. China,

100084. Phone: (+86)-10-62772955; Fax: (+86)-10-62772955; E-mail:

gaogu@mail.tsinghua.edu.cn

# These authors contributed equally to this work.

#### This PDF files includes:

Supplementary Figures 1-21 Supplementary Tables 1-6

## **Supplementary Materials:**





#### **Supplementary Figure 1**

#### Bioinformatic comparison and functional module analysis of Mesh in mosquitoes and

#### Drosophila

(a) Percentage of amino acid identity between A. aegypti (AaMesh) and D. melanogaster

Mesh (DmMesh).

(b) Schematic representation of AaMesh and DmMesh. The functional modules were

predicted using the SMART

(http://smart.embl-heidelberg.de/smart/set\_mode.cgi?GENOMIC=1) and Pfam

(http://pfam.sanger.ac.uk/) websites.



# Regulation of the *AaMesh* gene by the burden of the symbiotic microbiome in the

### mosquito guts

(a) Tissue distribution of AaMesh in A. aegypti.

(b) Oral introduction of antibiotics reduced the *AaMesh* expression in the mosquito guts. The midguts from the antibiotic-treated mosquitoes were isolated over a time course for *AaMesh* detection.

(c) Responses of *AaMesh* after a blood meal in the mosquito midguts. The midguts from the blood-fed mosquitoes were isolated over a time course to measure the *AaMesh* abundance. (a-c) The total RNA was isolated from mosquito tissues to determine *AaMesh* expression by SYBR Green qPCR. The *AaMesh* abundance was normalized by *A. aegypti actin*. The qPCR primers are described in Supplementary Table 6. The data were represented as the mean  $\pm$ S.E.M. The data were analyzed using the non-parametric *Mann-Whitney* test. All results were reproduced by at least 3 independent experiments.



#### Generation of a murine AaMesh antibody

Generation of a murine AaMesh antibody. (a) Purification of the AaMesh peptide expressed *by E. coli*. The peptide purification was verified by SDS-PAGE with Coomassie blue staining. (b) Validation of the AaMesh polyclonal antibody. A mouse-derived AaMesh polyclonal antibody, generated by a recombinant peptide from *E. coli* (a), was used to detect the recombinant AaMesh peptide expressed by *E. coil* or the native AaMesh in mosquito lysates (Left panel). The same samples probed by murine pre-immune serum served as a negative control (Right panel).



**Regulation of immune-related genes in the midguts of** *AaMesh*-suppressed mosquitoes *AaMesh* was silenced by dsRNA thoracic inoculation in *A. aegypti*, and the mosquito midguts were subsequently dissected at 3 days and 6 days post gene suppression. Meanwhile, the midguts of AaMesh antiserum-fed mosquitoes (1:100 dilution) were collected at 18 hours after a blood meal. The midguts from the *GFP* dsRNA-treated and pre-immune antiserum-fed mosquitoes served as negative controls. Gene regulation in the midguts was measured by RNA-Seq. (a) Analysis of immune-related immune signaling components, enzymes and effectors. Immune-related genes were clustered according to immune pathways and factors. (b) Overlap of down-regulated immune genes in these 3 different experimental conditions. Immune genes with log<sub>2</sub> ratio (read number in *AaMesh*-suppressed midgut / read number in control midgut)  $\leq$  -0.4 were selected for further analysis. (C) Five immune genes were consistently suppressed in the 3 different experimental conditions. The original RNA-Seq data is available in Supplementary Table 1.



#### Measurement of the gut integrity of the DmMesh RNAi flies

The *DmMesh* RNAi flies were fed by regular food with 2.5% (wt/vol) Red dye no.40 or Blue dye no.1, respectively. The aged flies (30 days old) were fed by the same materials as a positive control (Aged flies). The *GFP* RNAi flies served as negative controls (Control). The experiment was reproduced by 3 times.



## Regulation of DmDuox in homozygous DmMesh<sup>-/-</sup> Drosophila larvae.

(a) Detection of DmMesh in the whole homozygous *DmMesh<sup>-/-</sup>* larvae. The DmMesh was measured in the larvae lysates by western blotting with a murine AaMesh antibody.
(b) Regulation of *DmDuox* in homozygous *DmMesh<sup>-/-</sup>* larvae. Total RNA was isolated from the wild-type or the *DmMesh<sup>-/-</sup>* larvae to detect the *DmDuox* abundance using SYBR Green qPCR. One dot represents one fly gut. The horizontal line represents the mean value of the results. The data were analyzed using the non-parametric *Mann-Whitney* test.



Ectopic expression of *DmMesh* in *Drosophila* S2 cells enhanced *Duox* expression. The recombinant plasmid pAc-*DmMesh* was transfected into S2 cells. Transfection of a control plasmid pAc-*GFP* served as a negative control. *Duox* expression was determined by SYBR Green qPCR at 36 hours post transfection and normalized against *Drosophila actin* (*CG12051*). The qPCR primers are described in Supplementary Table 6. The data are presented as the mean  $\pm$  S.E.M. The data were analyzed using the non-parametric *Mann-Whitney* test. The results were repeated by 3 independent experiments.



**Regulation of gut bacterial composition in** *Mesh-silencing mosquito and Drosophila* The guts of *AaMesh-silenced mosquito* (a-b) and *DmMesh* RNAi *Drosophila* (c-d) were exploited for a 16S rDNA sequencing. The midguts of *AaMesh-silenced mosquito* were isolated at 6 days post dsRNA thoracic microinjection. The *GFP* dsRNA-microinjected mosquitoes and *GFP* RNAi flies were used as mock controls. The gut bacterial composition was analyzed by *QIIME*.



## Mesh regulates *Duox*, but not *Nox* expression, for regulation of gut microbiome in *A*. *aegypti* and *Drosophila*

(a-b) Regulation of the gut commensal bacteria in the DmNox (a) and DmDuox (b) RNAi

*Drosophila*. Both *DmNox* RNAi and *DmDuox* RNAi GAL4 *Drosophila* lines were driven by a midgut-specific *NP3084* promoter. *GFP* RNAi flies were used as negative controls. The burden of gut microbes was determined by a CFU assay.

(c-d) Knockdown of either *AaNox* (c) or *AaDuox* (d) enhanced the burden of gut microbiome in *A. aegypti*. The genes were silenced via thoracic microinjection of dsRNA. The *GFP* dsRNA-treated mosquitoes served as mock controls. The 16S rRNA was measured by SYBR Green qPCR and normalized against *A. aegypti actin* (*AAEL011197*). The qPCR primers are described in Supplementary Table 6. One dot represents one gut. The horizontal line represents the mean value of the results.

(e-f) Silencing *Mesh* does not regulate the *Nox* expression in *Drosophila* (e) and mosquito (f). The *Nox* genes was measured by SYBR Green qPCR. The qPCR primers are described in Supplementary Table 6.

(a-b, e-f) The data are presented as the mean  $\pm$  S.E.M. (a-f) The data were analyzed using the non-parametric *Mann-Whitney* test. All results were repeated by 3 independent experiments.



#### Regulation of the AaMesh mRNA abundance in the midguts of the immune

#### components-silenced mosquitoes

The dsRNA of these immune component genes were inoculated into mosquitoes. *GFP* dsRNA served as a mock control. The midguts of the treated mosquitoes were dissected 6 days after dsRNA inoculation. The expression levels of both immune component genes (a-h) and *AaMesh* (i) were determined by SYBR Green qPCR and normalized by *A. aegypti actin*. The qPCR primers are described in Supplementary Table 6. The data were represented as the mean  $\pm$  S.E.M. The data were analyzed using the non-parametric *Mann-Whitney* test.



#### Regulation of ROS activity in the guts of *AaERK*- and *AaJNK*-silenced mosquitoes.

Regulation of ROS activity in the guts of *AaERK*- and *AaJNK*-silenced mosquitoes. The ROS activity was detected using a  $H_2O_2$  assay. *GFP* dsRNA-treated mosquitoes served as mock controls. The data were presented as the mean  $\pm$ S.E.M. The data were analyzed using the non-parametric *Mann-Whitney* test. The results were combined from 3 independent experiments.



# Regulation of *AaArrestin* genes in the midguts of *AaMesh* silencing mosquitoes, and knockdown efficiency of *AaArrestins* in the mosquito midguts

(a-b) The *AaMesh* gene was silenced via thoracic dsRNA microinjection. *GFP* dsRNA-inoculated mosquitoes served as mock controls. Both *AaArrestin-a* (a) and *AaArrestin-b* (b) mRNA abundance in the midguts of *AaMesh* silencing mosquitoes was assessed by SYBR Green qPCR. The data were presented as the mean  $\pm$ S.E.M. (c-d) Two *AaArrestins* dsRNAs were inoculated into mosquitoes. *GFP* dsRNA served as a mock control. The midguts of the treated mosquitoes were dissected after dsRNA inoculation. The expression levels of *AaArrestin-a* (c) and *AaArrestin-b* (d) were determined using SYBR Green qPCR and normalized by *A. aegypti actin*. One dot represents one mosquito gut. The

horizontal line represents the mean value of the results.

(a-d) The qPCR primers are described in Supplementary Table 6. The data were analyzed using the non-parametric *Mann-Whitney* test.



**Regulation of** *AaERK* and *AaJNK* in the midguts of *AaMesh* silencing mosquitoes Both *AaERK* (a) and *AaJNK* (b) mRNA were assessed by SYBR Green qPCR in the midguts of *AaMesh* silencing mosquitoes. *GFP* dsRNA-inoculated mosquitoes served as mock controls. The qPCR primers are described in Supplementary Table 6. The data were represented as the mean  $\pm$ S.E.M. The data were analyzed using the non-parametric *Mann-Whitney* test.



#### Knockdown efficiency in DmERK and DmJNK RNAi Drosophila

Knockdown efficiency in *DmERK* (a) and *DmJNK* (b) RNAi *Drosophila*. The *DmERK* and *DmJNK* RNAi *Drosophila* strains were generated by a GAL4 line driven by *NP3084* promoter. The *NP3084 / GFP-RNAi* flies served as a negative control. The mRNA abundance in the midguts of *DmERK* and *DmJNK* RNAi flies was assessed by SYBR Green qPCR. The qPCR primers are described in Supplementary Table 6. The data were presented as the mean  $\pm$  S.E.M.



#### Knockdown efficiency of DmArresin-1 and DmArresin-2 in S2 cells

Both *DmArrestin-1* (a) and *DmArrestin-2* (b) were silenced by dsRNA transfection in the *Drosophila* S2 cells. The abundance of the *DmArrestins* gene was determined by SYBR Green qPCR and normalized by *Drosophila actin* (*CG12051*). The qPCR primers are described in Supplementary Table 6. The data were represented as the mean  $\pm$ S.E.M. The data were analyzed using the non-parametric *Mann-Whitney* test.



# Reduction of burden of gut microbiome by rescuing *DmDuox* into the *DmArrestin*-RNAi flies.

(a-b) Ectopic expression of *DmDuox* into the *DmArrestin-1* (a) and *DmArrestin-2* (b) RNAi flies reduced the burden of gut microbiome, respectively. The burden of the gut microbiome was determined by a CFU assay. *GFP* RNAi flies served as mock controls. One dot represents a *drosophila* gut. The horizontal line represents the mean value of the results. The data were analyzed using the non-parametric *Mann-Whitney* test. All results were repeated by 3 independent experiments.



# Regulation of gut commensal bacteria in either the blood feeding mosquitoes or the AaMesh signaling-interrupted mosquitoes

(a-b) Regulation of burdens of gut commensal bacteria in blood feeding. Both *C. testosteroni* and *C. meningosepticum* have been routinely identified as cultivable gut commensals in *Aedes* mosquitoes. The mosquito midguts, isolated at 12 hours post blood feeding, were collected for detection of *C. testosteroni* (a) and *C. meningosepticum* (b) burden by qPCR. The midguts of mosquito fed with sugar served as a negative control.

(c-d) Genetic interruption of Mesh-mediated signaling components enhanced the burden of these gut bacteria. *AaMesh*, *AaArrestin-a*, *AaArrestin-b* and *AaDuox* were silenced by dsRNA thoracic inoculation in *A. aegypti*, respectively. Mosquitoes inoculated by *GFP* dsRNA were

used as negative controls. The mosquito midguts, isolated at 12 hours post blood feeding, were collected for detection of *C. testosteroni* (c) and *C. meningosepticum* (d) burden by qPCR.

(a-d) The bacterial 16S rRNA was determined by SYBR Green qPCR and normalized against *A. aegypti actin.* The qPCR primers are described in Supplementary Table 6. The data were represented as the mean  $\pm$  S.E.M. The data were analyzed using the non-parametric *Mann-Whitney* test. All results were repeated by 3 independent experiments.



# Counting the number of acquired bacteria in the midgut of individual *Drosophila* and mosquito.

(a) Counting the number of acquired *C. testosteroni* in the midgut of individual mosquito. A serial of *C. testosteroni* (0.5 OD, 5 OD and 50 OD) with fresh blood was exploited to feed the antibiotic-treated mosquitoes.

(b) Measurement of the number of acquired *C. meningosepticum* in the midgut of individual mosquito. A serial of *C. meningosepticum* (0.5 OD, 5 OD and 50 OD) with fresh blood was fed into the antibiotic-treated mosquitoes.

(c) Determining the number of acquired *A. thailandicus* in the midgut of individual *Drosophlia*. A serial of *A. thailandicus* (1 OD, 50 OD and 250 OD ), mixed with the standard *Drosophila* food respectively, was exploited to feed the germ-free flies. The germ-free flies

were hatched and reared in an aseptic condition.

(a-c) Twelve insects in each group were randomly selected for the gut isolation, and subsequently the bacterial number was counted by a CFU assay. One dot represents an insect gut. The horizontal line represents the mean value of the results.



### Validation of aseptic condition in the midgut of germ-free flies

The midguts of untreated flies and germ-free flies were ground in PBS buffer. Bacterial number was assessed by a CFU assay on LB plates.



## The role of Mesh-mediated signaling pathway in response to pathogen infection of Drosophila

A *Drosophila* pathogen, *Erwinia carotovora carotovora 15 (Ecc15)*, was used to feed both *DmMesh-RNAi* and control flies, with the standard *Drosophila* food. The flies fed by the standard *Drosophila* food with PBS buffer acted as mock controls. The *DmDuox* expression in the *Drosophila* midgut was determined by qPCR and normalized against *Drosophila actin*. The qPCR primers are described in Supplementary Table 6. The data were represented as the mean  $\pm$  S.E.M. The data were analyzed using the non-parametric *Mann-Whitney* test. The experiment was repeated 3 times with the similar results.



#### Full-length blots from Figures 1, 2, 3, 4, 6 and Supplementary Figure 3 and 6

**a-d,** Validation of an AaMesh antibody in the guts of *AaMesh*-silenced mosquitoes. **e-f,** The knockdown efficiency in the guts of *DmMesh* RNAi flies. **g-l,** Genetic suppression of *AaMesh* and *AaArrestins* impaired the phosphorylation of AaERK and AaJNK in the mosquito guts. **m-o,** Both *DmArrestin-1* and *DmArrestin-2* knockdown suppressed the phosphorylation of DmERK (p-ERK) and DmJNK (p-JNK) in the pAc-DmMesh-trnasfected *Drosophila* S2 cells. **p-q,** Oral introduction of *A. thailandicus* (*A. tha*) induced the DmMesh expression. **r,** Purification of the AaMesh peptide expressed by *E. coli.* **s-t,** Validation of the AaMesh polyclonal antibody. **u-v,** Detection of DmMesh in the whole homozygous *DmMesh*<sup>-/-</sup> larvae.

Function Occurs		O an a Namah an	Log₂ Ratio		
Function Group	Gene Name	Gene Number	AaMesh/GFP dsRNA 3 days	AaMesh/GFP dsRNA 6 days	AaMesh antibody/Pre-immune
Apoptosis	CASPL1	AAEL014148	0.866733469	-0.573991383	0.371968777
Apoptosis	CASPL2	AAEL011562	0.188337039	0.145523658	0.195819326
Apoptosis	CASPS1	AAEL014658	-0.161785657	-0.177313602	0.262449253
Apoptosis	CASPS15	AAEL005963	0.72177919	1.696470816	-1.883186335
Apoptosis	CASPS16	AAEL005956	1.427785992	0.101492988	-0.301040728
Apoptosis	CASPS17	AAEL005955	0.76650987	0.267933205	0.914752713
Apoptosis	CASPS18	AAEL003439	1.145098894	-0.380170847	-0.643306487
Apoptosis	CASPS19	AAEL003444	1.304355465	-0.087132592	-0.079246751
Apoptosis	CASPS21	AAEL017498	1.345387068	0.189342455	-0.227561524
Apoptosis	CASPS7	AAEL012143	0.476237656	0.232947603	0.122702992
Apoptosis	CASPS8	AAEL014348	1.299022184	-0.215344126	0.110451451
Apoptosis	CED-6	AAEL012967	0.962788921	-0.288244969	-1.114783447
Apoptosis	CED-6	AAEL012821	0.835428233	-0.523323435	0.102447269
Apoptosis	IAP1	AAEL009074	0.435079065	0.045968739	-0.029902063
Apoptosis	IAP2	AAEL006633	0.573374526	0.41289414	-0.092331881
Apoptosis	IAP5	AAEL014251	5.247927513	-2.150559677	5.169925001
Apoptosis	IAP6	AAEL012446	0.86270769	0.259828739	0.339269992
Apoptosis	IAP9	AAEL012512	-0.91195904	0.519002697	0.338305301
Autophagy	Autophagy related gene	AAEL016987	2.455511249	0.678071905	-1.482663925
Autophagy	Autophagy related gene	AAEL013995	0.710280486	0.620599545	0.337625029
Autophagy	Autophagy related gene	AAEL003799	1.093841754	0.382333334	0.027593369
Autophagy	Autophagy related gene	AAEL013815	0.473069621	-0.023458973	-0.887525271
Autophagy	Autophagy related gene	AAEL013063	4.061111514	-0.271708739	1.566346823

## Supplementary Table 1. Regulation of immune genes in the AaMesh-impaired midguts

Autophagy	Autophagy related gene	AAEL002286	0.344959064	-0.157227375	-0.44170545
Autophagy	Autophagy related gene	AAEL010641	0.157744731	0.054290156	0.24687739
Autophagy	Autophagy related gene	AAEL010516	0.486514013	-0.064011758	NA
Autophagy	Autophagy related gene	AAEL010427	0.234929068	-0.36882907	NA
Autophagy	Autophagy related gene	AAEL009105	0.384945434	0.154520308	0.140106884
Autophagy	Autophagy related gene	AAEL009089	1.003260329	-0.221916363	-1.31802364
Autophagy	Autophagy related gene	AAEL007228	0.719892081	-0.031478231	0.121745272
Autophagy	Autophagy related gene	AAEL007162	1.452032718	0.230617753	-0.68475139
Autophagy	Autophagy related gene	AAEL000955	0.258286795	0.178078885	-0.019628807
Effector	CECA	AAEL000627	0.403064858	-0.628199595	0.39550533
Effector	CECB	AAEL004223	1.33451934	0.332097641	-0.375600475
Effector	CECE	AAEL000611	1.789015331	0.690415267	1.588998014
Effector	CECG	AAEL015515	10.56605404	0.424256029	-1.486792082
Effector	CECH	AAEL017211	1.647160134	0.955422372	-0.353677149
Effector	CECI	AAEL000775	6.044394119	-1.988684687	NA
Effector	CECJ	AAEL000777	6.781359714	NA	NA
Effector	CECN	AAEL000621	1.881499958	-0.07028694	2.584962501
Effector	DEFA	AAEL003841	2.392947558	-0.601941822	-0.305986551
Effector	DEFC	AAEL003832	0.088103992	-0.850118517	-1.116592129
Effector	DEFD	AAEL003857	1.243905394	-0.352015925	0.713658221
Effector	DEFE	AAEL003849	2.795943715	0.199267951	-0.192854544
Effector	DUOX	AAEL007563	-2.1069153	-1.2251198	-2.3923174
Effector	LYSC11	AAEL003723	1.241286834	-0.051640464	0.268458078
Effector	LYSC4	AAEL017132	1.139189408	-0.013838907	-1.413691074
Effector	LYSC6	AAEL005988	-0.514573173	0.319459839	NA
Effector	LYSC7A	AAEL010100	1.378792194	0.362832734	0.924259485

Effector	LYSC7B	AAEL015404	0.724276503	0.058686624	-0.005810818
Effector	LYSC9	AAEL009670	-1.128104826	-6.491853096	-0.415037499
Imd	IMD	AAEL010083	1.025068034	1.49810411	-0.416555327
Imd	REL2	AAEL007624	0.542460733	-0.062510979	0.106041637
JAK-STAT	DOME	AAEL012471	0.934972433	0.034716205	0.130396637
JAK-STAT	HOP	AAEL012553	0.732402506	0.357223986	-0.300062526
JAK-STAT	STAT1	AAEL009692	0.242360838	0.004907131	0.097447145
МАРК	Erk1/2	AAEL013939	2.328948523	0.811487537	-0.707819249
МАРК	Erk1/2	AAEL007958	2	-0.662268227	-1.584962501
Imd	IKK1	AAEL003245	0.267365898	0.065517411	-0.437835628
Imd	IKK2	AAEL012510	0.506347946	-0.052626931	-0.0222559
МАРК	JNK	AAEL008634	2.75996742	-0.138552375	-0.153912683
МАРК	JNK	AAEL008622	3.30580843	0.911190733	3.169925001
МАРК	MAPKK	AAEL003359	2.251178048	0.398031074	-0.042228235
МАРК	MAPKK	AAEL001622	0.548533714	-0.157791246	0.268551411
МАРК	MAPKK4	AAEL003013	1.371808564	0.17954942	-0.37378585
МАРК	P38MAPK	AAEL008379	0.956572235	0.028083784	-0.371429065
Oxidative defense	HPX2	AAEL013171	0.528694281	-0.623271858	0
enzymes					
Oxidative defense	HPX6	AAEL012481	-4.807354922	5.392317423	4.807354922
enzymes					
Oxidative defense	HPX7	AAFI 004401	-0.421137699	-0.832722068	-0.459431619
enzymes					
Oxidative defense	HPX8A	AAEI 004388	4.087462841	-0.061029433	3
enzymes			1.001102011	0.001020100	Ū
Oxidative defense	HPX8B	AAEL004390	-1.988684687	-0.579047487	0.292180751

enzymes					
Oxidative defense enzymes	PERC	AAEL004386	-0.584962501	-0.620887782	0.763932642
RNA interference	Dicer-1	AAEL006794	1.282132927	0.165222382	-0.237797114
RNA interference	Dicer-1	AAEL001612	1.666262603	0.725140159	-0.61667136
<b>RNA</b> interference	PIWI	AAEL008076	-0.584962501	0.045596866	-3.906890596
RNA interference	PIWI	AAEL007823	0.456664595	-0.31000571	-0.251626734
<b>RNA</b> interference	PIWI3	AAEL013692	-5.209453366	-0.663204524	4.247927513
RNA interference	PIWI4	AAEL007698	0.151248052	-0.138914779	-0.0726278
<b>RNA</b> interference	PIWI5	AAEL013233	0.325416027	0.07854711	0.043990014
RNA interference	PIWI6	AAEL013227	0.392317423	0.071181565	0.236687535
Signal Modulation	Arrestin a	AAEL013535	-4.11401626	-1.9541963	-0.551045006
Signal Modulation	Arrestin b	AAEL003116	-4.282692932	-0.403064858	-1.9995094
Signal Modulation	beta-arrestin 1	AAEL013704	2.512907564	0.408962985	-0.333423734
Signal Modulation	beta-arrestin 1	AAEL012004	2.122228259	0.214563048	0.176453044
Signal Modulation	CLIP	AAEL014005	1.224630894	-0.169618859	0.905003486
Signal Modulation	CLIP	AAEL014004	-7.562242424	0.326500825	-6.523561956
Signal Modulation	CLIP	AAEL003279	0.675377796	0.010397847	0.257332046
Signal Modulation	CLIP	AAEL009726	0.307572802	-0.648903322	0.393663848
Signal Modulation	CLIP	AAEL009722	-1.227640499	-0.397849567	2.060120992
Signal Modulation	CLIP	AAEL001098	1.67474218	-0.246179186	0
Signal Modulation	CLIP	AAEL006576	-1.19962753	-0.719844592	0.721344614
Signal Modulation	CLIP	AAEL014724	-0.263034406	-6.584962501	NA
Signal Modulation	CLIPA1	AAEL002601	1.345644164	0.402437462	0
Signal Modulation	CLIPA15	AAEL002126	-2.807354922	NA	NA
Signal Modulation	CLIPA16	AAEL008404	-0.94753258	-2.478047297	NA

Signal Modulation	CLIPA17	AAEL007006	0.08246216	-0.309684499	0.584962501
Signal Modulation	CLIPB	AAEL017555	1.66862043	0.232734366	7.238404739
Signal Modulation	CLIPB1	AAEL000074	-2.492598483	-0.646762329	1.495810123
Signal Modulation	CLIPB13B	AAEL003253	-5.672425342	7.14974712	-1.974004791
Signal Modulation	CLIPB15	AAEL014349	0.635977787	0.289096702	-0.41686717
Signal Modulation	CLIPB19	AAEL000059	-0.936806174	0.012600037	0
Signal Modulation	CLIPB21	AAEL001084	1.986579484	-0.144816553	-0.584962501
Signal Modulation	CLIPB22	AAEL008668	1.829269698	-0.40053793	-0.591360272
Signal Modulation	CLIPB23	AAEL012785	-0.807354922	-0.956056652	5.321928095
Signal Modulation	CLIPB24	AAEL014140	-6.375039431	-0.109624491	1.021695071
Signal Modulation	CLIPB25	AAEL014137	-0.94753258	1	1.054447784
Signal Modulation	CLIPB27	AAEL007993	0.998783049	-0.264216216	1.307281319
Signal Modulation	CLIPB28	AAEL013245	1.064130337	0.025535092	1
Signal Modulation	CLIPB29	AAEL006674	-0.002729793	-0.413580477	1.345208919
Signal Modulation	CLIPB30	AAEL000760	-2.256339753	1.708233876	1.041820176
Signal Modulation	CLIPB31	AAEL006161	1.763437806	0.673556424	-1
Signal Modulation	CLIPB33	AAEL000099	0.084064265	0.090480746	-1.457472766
Signal Modulation	CLIPB34	AAEL000028	-0.694865495	-0.49413258	0.645211611
Signal Modulation	CLIPB35	AAEL000037	-1.335603032	-0.675761333	1.261585189
Signal Modulation	CLIPB36	AAEL017325	-1.079727192	-0.379530956	0.537797393
Signal Modulation	CLIPB37	AAEL005431	-0.402546555	-1.755515991	1
Signal Modulation	CLIPB39	AAEL003632	5.087462841	NA	NA
Signal Modulation	CLIPB40	AAEL003614	-0.321928095	-1.598078001	4.906890596
Signal Modulation	CLIPB41	AAEL003631	-0.906890596	0.275634443	-5.491853096
Signal Modulation	CLIPB42	AAEL006168	0.08246216	-0.986325063	0
Signal Modulation	CLIPB43	AAEL014354	-5.044394119	-0.448862377	0.956931278

Signal Modulation	CLIPB45	AAEL001077	0.446800062	-0.005427072	-0.233097122
Signal Modulation	CLIPB46	AAEL005093	1.758637386	-0.51603216	-0.13439594
Signal Modulation	CLIPB5	AAEL005064	0.331621491	0.059297184	-2.14543044
Signal Modulation	CLIPB6	AAEL000038	0.673349495	-0.277533976	0.523051899
Signal Modulation	CLIPB8	AAEL003625	-1.286579833	-0.645867849	1.361280923
Signal Modulation	CLIPB9	AAEL003610	-0.137503524	1.95419631	-0.125530882
Signal Modulation	CLIPC1	AAEL011991	-1.652076697	-0.11042399	1.584962501
Signal Modulation	CLIPC12	AAEL012711	0.074000581	-0.700439718	0.672425342
Signal Modulation	CLIPC13	AAEL012712	-0.316857105	-0.054861935	0.846194664
Signal Modulation	CLIPC2	AAEL007593	-0.328084955	-0.402933013	0.244611046
Signal Modulation	CLIPC3	AAEL007597	-0.841302254	-0.463400521	1.823677227
Signal Modulation	CLIPC5A	AAEL004518	-4	0.731183242	4
Signal Modulation	CLIPC5B	AAEL004524	0.087462841	-1.086711633	4
Signal Modulation	CLIPC6	AAEL004540	-0.234465254	-0.4896763	1
Signal Modulation	CLIPD1	AAEL007796	0.256339753	-0.877794068	0.156725504
Signal Modulation	CLIPD6	AAEL002124	0.086877451	-0.24954217	-0.358793389
Signal Modulation	CLIPD7	AAEL015439	3.097412502	-0.571415969	-0.480625841
Signal Modulation	CLIPE11	AAEL005800	-4.754887502	-3.807354922	NA
Signal Modulation	CLIPE8	AAEL005792	5.209453366	0.231815675	-0.598637438
Signal Modulation	CTL14	AAEL011453	6.442943496	8.21916852	5.357552005
Signal Modulation	CTL16	AAEL000533	0.50389089	0	1.579085934
Signal Modulation	CTL18	AAEL005482	2.133814289	-0.005697405	-0.78956873
Signal Modulation	CTL20	AAEL011407	0.10433666	NA	6.918863237
Signal Modulation	CTL24	AAEL002524	1.732220592	-0.836501268	-0.263034406
Signal Modulation	CTL25	AAEL000556	1.035502985	1	8.703903573
Signal Modulation	CTL6	AAEL003119	1.770605736	-0.076466536	-0.400735066

Signal Modulation	CTLGA1	AAEL011078	0.827163403	1.330916878	4.95419631
Signal Modulation	CTLGA2_b	AAEL013853	0.503110747	0.39818443	0.108059746
Signal Modulation	CTLGA3	AAEL011070	0.672835257	-0.512554005	-0.2410081
Signal Modulation	CTLGA4	AAEL017484	5.584962501	7.118941073	NA
Signal Modulation	CTLGA5	AAEL005641	1.870108873	-0.139463898	-0.026685658
Signal Modulation	CTLGA7	AAEL017265	1.464551454	-0.377988054	0.223350704
Signal Modulation	CTLGA8	AAEL011610	3.997265032	-0.533914895	0.547487795
Signal Modulation	CTLGA9_a	AAEL014385	5.857980995	NA	5.781359714
Signal Modulation	CTLMA11	AAEL000543	-0.501880759	-0.662965013	0.486698484
Signal Modulation	CTLMA12	AAEL011455	1.664815808	-1.104469267	1
Signal Modulation	CTLMA14	AAEL014382	1.98112199	-0.382222702	-0.207276218
Signal Modulation	CTLMA15	AAEL000563	-5.459431619	-0.415037499	NA
Signal Modulation	CTLSE1	AAEL008929	-2	0.604071324	NA
Signal Modulation	GALE1	AAEL003541	0.51315313	0.10059437	-0.303392143
Signal Modulation	GALE12	AAEL009842	0.826334772	0.067326978	-0.526880194
Signal Modulation	GALE13	AAEL009845	1.018279736	-0.256503408	-0.97340579
Signal Modulation	GALE14	AAEL009850	0.280745856	-0.353252511	0.362398626
Signal Modulation	GALE2	AAEL012135	0.513822824	0.021151264	0.185140494
Signal Modulation	GALE3	AAEL004196	0.4680812	-0.162127311	0.183748677
Signal Modulation	GALE5	AAEL003844	-0.136146086	0.018925425	0.503649674
Signal Modulation	GALE6A	AAEL005294	2.412939033	-0.181656367	NA
Signal Modulation	GALE6B	AAEL012003	-5.426264755	NA	NA
Signal Modulation	GALE8B_a	AAEL005293	0.623091446	-0.305711536	0.241603882
Signal Modulation	SCRAL1	AAEL015308	0.247251409	0.182653306	-0.398435532
Signal Modulation	SCRASP1	AAEL009192	0.735311127	-0.617511195	-0.110747066
Signal Modulation	SCRB10	AAEL007748	-0.177787119	0.017382078	1.544320516

Signal Modulation	SCRB16	AAEL005981	1.662965013	3.584962501	NA
Signal Modulation	SCRB17	AAEL008370	0.416580214	0	0.120784711
Signal Modulation	SCRB3	AAEL005979	-2.268488836	-0.321928095	4.392317423
Signal Modulation	SCRB5	AAEL011222	-0.593679718	0.6983443	-1.070389328
Signal Modulation	SCRB6	AAEL002741	4.584962501	3.584962501	-1
Signal Modulation	SCRB7	AAEL000234	1.408968663	0.027032959	-0.151655414
Signal Modulation	SCRB8	AAEL000227	0.444943984	0.479587815	-0.170352403
Signal Modulation	SCRB9	AAEL000256	2.102361718	-0.107640723	-1
Signal Modulation	SCRBQ1	AAEL009420	0.075981918	0.313284	0.368067633
Signal Modulation	SCRBQ2	AAEL009423	0.630664714	0.077006645	-0.151086078
Signal Modulation	SCRBQ3	AAEL009432	0.147906057	0.206959451	0.219424409
Signal Modulation	SCRC1	AAEL006355	-0.898120386	1.070389328	-1
Signal Modulation	SCRC2	AAEL006361	0.115477217	-0.310340121	0
Toll	CACT	AAEL000709	-0.191724952	0.119652203	0.095476315
Imd	FADD	AAEL001932	-0.051428239	-0.980100443	-1.802963153
Toll	MYD	AAEL007768	1.724513853	0.266633375	-0.128254491
Toll	PELLE	AAEL006571	-0.173610048	0.628452324	0.137858911
Toll	REL1A	AAEL007696	0.028827406	0.1616709	0.068456979
Toll	SPZ1C	AAEL013433	-6.22881869	0	NA
Toll	SPZ3A	AAEL008596	0.719892081	0.225292312	-0.364764293
Toll	SPZ3B	AAEL014950	1.104829973	-0.248048226	0.44625623
Toll	SPZ4	AAEL007897	6.794415866	-0.185031894	0
Toll	SPZ5	AAEL001929	1.509861045	2.017073513	0
Toll	SPZ6	AAEL012164	4	-1.584962501	4.95419631
Toll	TOLL	AAEL001771	2.321928095	NA	NA
Toll	TOLL	AAEL015018	2.184337659	0.352406511	-0.922757001

Toll	TOLL10	AAEL004000	0.321928095	-1	-2
Toll	TOLL11	AAEL009551	0.884522783	0.440572591	0
Toll	TOLL1A	AAEL007613	1.851677253	0.247092862	0.142352923
Toll	TOLL4	AAEL017523	-0.925999419	0.135883428	-1.963474124
Toll	TOLL5A	AAEL007619	1.393914208	-0.283031314	-0.30218416
Toll	TOLL5B	AAEL000057	1.437155905	0.169925001	0.127111918
Toll	TOLL6	AAEL000671	3.700439718	0	-2
Toll	TOLL7	AAEL002583	2.321928095	-5.247927513	0.716207034
Toll	TOLL9A	AAEL013441	0.65732382	0.298210834	0.10269495
Toll	TOLL9B	AAEL011734	0.47714903	0.51908019	0.035436045
Toll	Toll-like receptor	AAEL006212	1.595669007	0.196320736	-1.115477217
Toll	TUBE	AAEL007642	0.9510904	-0.051715037	-1.344334508

Таха	GFP dsRNA	AaMesh dsRNA	
Unassigned;Other	0.026585563	0.018609894	
kBacteria;pActinobacteria	2.670253945	0.179186694	
kBacteria;pBacteroidetes	72.33346803	4.392998426	
kBacteria;pCyanobacteria	4.25E-03	0	
kBacteria;pFirmicutes	1.150623166	26.0575737	
kBacteria;pPlanctomycetes	0.020736739	5.85E-03	
kBacteria;pProteobacteria	23.77759581	69.34365562	
kBacteria;p[Thermi]	0.016483049	2.13E-03	

Supplementary Table 2. Relative abundance of bacteria phylum in mosquito midgut (%)

k: Kingdom; p: Phylum.

Taxa	GFP dsRNA	AaMesh dsRNA
Unassigned;Other;Other;Other;Other	0.026585563	0.018609894
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Brevibacteriaceae;g_Brevibacterium	0.022863584	0.001063423
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Corynebacteriaceae;g_Corynebacterium	0.001063423	0.001595134
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Micrococcaceae;g_Kocuria	0.052107703	0.001063423
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Micrococcaceae;g_Micrococcus	0.162703645	0.00425369
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Nocardioidaceae;g_	0.00850738	0
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Nocardioidaceae;g_Nocardioides	0.022331873	0.000531711
k_Bacteria;p_Actinobacteria;c_Actinobacteria;o_Actinomycetales;f_Propionibacteriaceae;g_Propionibacterium	0.057956527	0.002126845
k_Bacteria;p_Actinobacteria;c_Rubrobacteria;o_Rubrobacterales;f_Rubrobacteraceae;g_Rubrobacter	2.342719809	0.168552469
k_Bacteria;p_Bacteroidetes;c_Cytophagia;o_Cytophagales;f_Cytophagaceae;g_	0.009039091	0
k_Bacteria;p_Bacteroidetes;c_Cytophagia;o_Cytophagales;f_Cytophagaceae;g_Spirosoma	0.014356204	0.009039091
k_Bacteria;p_Bacteroidetes;c_Flavobacteriia;o_Flavobacteriales;f_Flavobacteriaceae;g_	0.005317113	0.004785401
k_Bacteria;p_Bacteroidetes;c_Flavobacteriia;o_Flavobacteriales;f_Flavobacteriaceae;g_Flavobacterium	0.094644604	0.012229359
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pseudomonadales;f_Moraxellaceae;g_Acinetobacter	0.199391722	0.005317113
k_Bacteria;p_Bacteroidetes;c_Flavobacteriia;o_Flavobacteriales;f_[Weeksellaceae];g_Elizabethkingia	71.99848994	4.357905483
k_Bacteria;p_Bacteroidetes;c_Sphingobacteriia;o_Sphingobacteriales;f_Sphingobacteriaceae;g_Sphingobacterium	0.012229359	0.003721979
k_Bacteria;p_Cyanobacteria;c_Chloroplast;o_Chlorophyta;f_Trebouxiophyceae;g_	0.00425369	0
k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Bacillaceae;g_Anoxybacillus	0.090390914	0.003190268
k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Bacillaceae;g_Bacillus	0.092517759	0.001063423
k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Planococcaceae;g_Planococcus	0.036156366	0.000531711
k_Bacteria;p_Firmicutes;c_Bacilli;o_Bacillales;f_Staphylococcaceae;g_Staphylococcus	0.155791399	0.048385725
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Aerococcaceae;g_	0.108469097	0
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Aerococcaceae;g_Aerococcus	0.182908673	0
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Enterococcaceae;Other	0.001063423	0.081883534
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Lactobacillaceae;g_Lactobacillus	0.044663746	0
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Streptococcaceae;g_Lactococcus	0.360500234	25.92198732
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Streptococcaceae;g_Streptococcus	0.039346633	0
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Lachnospiraceae;g_Catonella	0.007443958	0
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_Veillonellaceae;g_Veillonella	0.023395295	0
k_Bacteria;p_Firmicutes;c_Clostridia;o_Clostridiales;f_[Tissierellaceae];g_Anaerococcus	0.007975669	0.000531711
k_Bacteria;p_Planctomycetes;c_Planctomycetia;o_Planctomycetales;f_Planctomycetaceae;g_Planctomyces	0.020736739	0.005848824
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Caulobacterales;f_Caulobacteraceae;g_	0.597643456	0.065400485
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Caulobacterales;f_Caulobacteraceae;g_Brevundimonas	3.323195372	0.017546472

## Supplementary Table 3. Relative abundance of bacteria genus in mosquito midgut (%)

Таха	GFP dsRNA	AaMesh dsRNA
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Caulobacterales;f_Caulobacteraceae;g_Mycoplana	0.168552469	0.027117274
kBacteria;pProteobacteria;cAlphaproteobacteria;oRhizobiales;f;g	0.020205028	0
kBacteria;pProteobacteria;cAlphaproteobacteria;oRhizobiales;fBeijerinckiaceae;g	0.007975669	0.000531711
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Bradyrhizobiaceae;g_	0.002126845	0
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Brucellaceae;g_Ochrobactrum	0.09730316	0.018078183
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Hyphomicrobiaceae;g_Devosia	0.002126845	0.000531711
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Hyphomicrobiaceae;g_Hyphomicrobium	0.085605513	0
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Methylobacteriaceae;g_	0.018609894	0.026053852
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Methylobacteriaceae;g_Methylobacterium	0.007975669	0
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Phyllobacteriaceae;Other	0.01701476	0.006912246
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Rhizobiaceae;g_Agrobacterium	0.044663746	0.004785401
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhizobiales;f_Xanthobacteraceae;g_Xanthobacter	0.096771449	0
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodobacterales;f_Hyphomonadaceae;g_	0.06752733	0
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodobacterales;f_Rhodobacteraceae;g_Anaerospora	0.173337871	0.026053852
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodobacterales;f_Rhodobacteraceae;g_Paracoccus	0.023395295	0.006912246
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodobacterales;f_Rhodobacteraceae;g_Rhodobacter	0.006912246	0.000531711
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodobacterales;f_Rhodobacteraceae;g_Rubellimicrobium	0.051044281	0.002658556
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodospirillales;f_Acetobacteraceae;g_	0.107937386	0.035624654
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodospirillales;f_Acetobacteraceae;g_Acetobacter	0	0.081883534
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodospirillales;f_Rhodospirillaceae;g_	0.004785401	0.003190268
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Sphingomonadales;f_Sphingomonadaceae;g_	0.00850738	0.010102514
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Sphingomonadales;f_Sphingomonadaceae;g_Sphingobium	0.037219788	0
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Sphingomonadales;f_Sphingomonadaceae;g_Sphingomonas	0.193542898	0.028712408
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Sphingomonadales;f_Sphingomonadaceae;g_Sphingopyxis	0.061678506	0.001595134
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_;g_	0.01701476	0
kBacteria;pProteobacteria;cBetaproteobacteria;oBurkholderiales;fAlcaligenaceae;gAchromobacter	0.922519035	0.222787018
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Comamonadaceae;g_	0.05901995	0.000531711
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Comamonadaceae;g_Acidovorax	0.045195457	0
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Comamonadaceae;g_Comamonas	4.730635076	0.449296014
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Comamonadaceae;g_Delftia	0.309987664	0.001063423
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Oxalobacteraceae;Other	0.049980858	0
kBacteria;pProteobacteria;cBetaproteobacteria;oBurkholderiales;fOxalobacteraceae;g	0.048385725	0.000531711
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Oxalobacteraceae;g_Ralstonia	0.040410056	0.020205028
kBacteria;pProteobacteria;cBetaproteobacteria;oMethylophilales;fMethylophilaceae;g	0.006912246	0

Таха	GFP dsRNA	AaMesh dsRNA
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Neisseriales;f_Neisseriaceae;g_Chromobacterium	0.00850738	1.206452848
k_Bacteria;p_Proteobacteria;c_Betaproteobacteria;o_Rhodocyclales;f_Rhodocyclaceae;g_Zoogloea	0.001063423	0
k_Bacteria;p_Proteobacteria;c_Deltaproteobacteria;o_Myxococcales;f_Haliangiaceae;g_	0	0.006380535
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Aeromonadales;f_Aeromonadaceae;g_	0.125483857	0.027117274
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Alteromonadales;f_Alteromonadaceae;g_Cellvibrio	0.02126845	0.003721979
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Enterobacteriales;f_Enterobacteriaceae;g_	1.864179676	0.153132843
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Enterobacteriales;f_Enterobacteriaceae;g_Enterobacter	0.058488239	0.000531711
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Enterobacteriales;f_Enterobacteriaceae;g_Morganella	0.784805819	0.040410056
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Enterobacteriales;f_Enterobacteriaceae;g_Serratia	0.026053852	0
k_Bacteria;p_Bacteroidetes;c_Flavobacteriia;o_Flavobacteriales;f_[Weeksellaceae];g_Chryseobacterium	7.137691948	0.37166617
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pseudomonadales;f_Moraxellaceae;g_Enhydrobacter	0.02126845	0.04625888
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pseudomonadales;f_Pseudomonadaceae;Other	0.451422859	0.018078183
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pseudomonadales;f_Pseudomonadaceae;g_	0.003721979	0.74705432
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pseudomonadales;f_Pseudomonadaceae;g_Pseudomonas	1.429239866	65.61795483
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Xanthomonadales;f_Xanthomonadaceae;g_	0.280743545	0.04200519
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Xanthomonadales;f_Xanthomonadaceae;g_Pseudoxanthomo	r 0.00850738	0.000531711
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Xanthomonadales;f_Xanthomonadaceae;g_Stenotrophomona	0.099430006	0.003721979
k_Bacteria;p_[Thermi];c_Deinococci;o_Thermales;f_Thermaceae;g_Thermus	0.016483049	0.002126845

k: Kingdom; p: Phylum; c: Class; o: Order; f: Family; g: Genus.

#OTU ID	Control	DmMesh RNAi	
Unassigned;Other	0.021002554	0.032236479	
k_Bacteria;p_Actinobacteria	0.108431793	0.018071965	
kBacteria;pBacteroidetes	14.74428169	8.235931952	
k_Bacteria;p_Cyanobacteria	0	8.30E-03	
kBacteria;pFirmicutes	69.58195148	2.859766432	
k_Bacteria;p_Proteobacteria	15.54433249	88.84568984	

|--|

k: Kingdom; p: Phylum.

#OTU ID	Control	DmMesh RNAi
Unassigned;Other;Other;Other;Other;Other	0.021002554	0.032236479
k_Bacteria;p_Actinobacteria;c_Rubrobacteria;o_Rubrobacterales;f_Rubrobacteraceae;g_Rubrobacter	0.108431793	0.018071965
k_Bacteria;p_Bacteroidetes;c_Flavobacteriia;o_Flavobacteriales;f_Flavobacteriaceae;g_Flavobacterium	0.004395883	0.000488431
k_Bacteria;p_Bacteroidetes;c_Flavobacteriia;o_Flavobacteriales;f_[Weeksellaceae];g_Chryseobacterium	0.012699219	0.009280198
k_Bacteria;p_Bacteroidetes;c_Flavobacteriia;o_Flavobacteriales;f_[Weeksellaceae];g_Elizabethkingia	14.72718659	8.226163322
kBacteria;pCyanobacteria;cChloroplast;oStreptophyta;f;g	0	0.008303335
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Aerococcaceae;g_Aerococcus	0.00341902	0.004395883
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Enterococcaceae;g_Enterococcus	54.92607589	1.236708558
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Lactobacillaceae;g_	14.15718703	0.320899495
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Lactobacillaceae;g_Lactobacillus	0.00341902	0.067891978
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Leuconostocaceae;g_Leuconostoc	0	0.001465294
k_Bacteria;p_Firmicutes;c_Bacilli;o_Lactobacillales;f_Streptococcaceae;g_Lactococcus	0.49185052	1.228405222
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Caulobacterales;f_Caulobacteraceae;g_	0.023444712	0.004884315
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Caulobacterales;f_Caulobacteraceae;g_Brevundimonas	0.185115538	0.014164513
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodobacterales;f_Rhodobacteraceae;g_Anaerospora	0.003907452	0.001953726
kBacteria;p_Proteobacteria;cAlphaproteobacteria;oRhodospirillales;fAcetobacteraceae;Other	0.721413325	5.507553593
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rhodospirillales;f_Acetobacteraceae;g_	0.356066563	0.01318765
kBacteria;p_Proteobacteria;cAlphaproteobacteria;oRhodospirillales;fAcetobacteraceae;gAcetobacter	4.425189389	81.3790375
k_Bacteria;p_Proteobacteria;c_Alphaproteobacteria;o_Rickettsiales;f_Rickettsiaceae;g_Wolbachia	0.050308444	0.001465294
kBacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Alcaligenaceae;g_Achromobacter	0.049820013	0.017583534
kBacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Comamonadaceae;g_Comamonas	0.201722209	0.072776293
kBacteria;p_Proteobacteria;c_Betaproteobacteria;o_Burkholderiales;f_Comamonadaceae;g_Delftia	0.002442157	0.001953726
kBacteria;p_Proteobacteria;c_Betaproteobacteria;o_Neisseriales;f_Neisseriaceae;g_Chromobacterium	0.038586088	0.009280198
kBacteria;p_Proteobacteria;cGammaproteobacteria;oEnterobacteriales;fEnterobacteriaceae;g	0.06838041	0.020025691
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Enterobacteriales;f_Enterobacteriaceae;g_Morganella	0.017095102	0.004395883
kBacteria;p_Proteobacteria;cGammaproteobacteria;oPseudomonadales;fMoraxellaceae;gAcinetobacter	2.493442807	0.250076928
kBacteria;p_Proteobacteria;cGammaproteobacteria;oPseudomonadales;fPseudomonadaceae;g	3.663724681	0.91190161
k_Bacteria;p_Proteobacteria;c_Gammaproteobacteria;o_Pseudomonadales;f_Pseudomonadaceae;g_Pseudomonas	3.226090057	0.629099772
kBacteria;p_Proteobacteria;cGammaproteobacteria;oXanthomonadales;fXanthomonadaceae;g	0.016606671	0.006349609
$\label{eq:k_Bacteria} k\_Bacteria;p\_Proteobacteria;c\_Gamma proteobacteria;o\_Xanthomonadales;f\_Xanthomonadaceae;g\_Stenotrophom$	a: 0.000976863	0

## Supplementary Table 5. Relative abundance of bacteria genus in Drosophila gut (%)

k: Kingdom; p: Phylum; c: Class; o: Order; f: Family; g: Genus.

#### Supplementary Table 6. Primers for qPCR, dsRNA synthesis and genes cloning

	opper primer	Lower primer
DmMesh (V5 tag in the C-terminal)	GGGGTACCATGCGTTTCAAACTGTTTGTG	CCGCTCGAGGACCTCCGTGGACTTCTG
The primers for genes cloning(pET28)	Upper primer	Lower primer
AaMesh(994-1174 aa)	CCGGAATTCGTGATAGCACCAAATTTGAACA	GGACTCGAGCACAGCGCGTAGACATTCGG
The primers for RT-QPCR	Upper primer	Lower primer
AaMesh	GGCGTGGGGAAAGCGTTATT	TTCGGGGGTAAGAATTGTGACG
AaJNK	GATCCGGGGAGGAGTGCTG	CATGAACGAGGGCGACGG
AaERK	GTGACAAAGACAAAGGTTGCCATC	TCGTGTTTGAACCGGGTG
AaP38	AATGCTGGAACTAGACGC	ATACAGCGAAGACGTTGG
AaPI3K	GGCACCAAGGATGGGTTTATG	CAAATCTTCCGCATAGGTCCAC
AaMyd88	CGTGATTGGCGAGGGTTGTTTC	ATCCGCTCCAATGCTCGTTTCC
Aalmd	TCGTCAAACTCGGTTTTCCT	TGGCGGAGTTGAAGGTAAAG
AaAkt	TATCGGCACTCGGCTATCTACA	GTCTTCGTTGTGCGTCCGTAG
AaDome	AAACGGTGGCAAAATGAACT	CATACAGCCGGCTTTCTTCT
AaArrestin-a	GGTGTCGATGTGGTGCTCTTCC	AGCCTGGTTGAATCGGACATCC
AaArrestin-b	AGCAAGCATATCGCCTCACTGG	GGCGGTCCTTGTTGCTGGAA
AaDuox	ATGCTGAGCCCAGAGAGATT	TTTCCTCATCAGTCCAATCG
AaNox	TCCACAATACGGTTTCGCTA	GCCGTCCAACAGAAATTGTA
AaActin	GAACACCCAGTCCTGCTGACA	TGCGTCATCTTCTCACGGTTAG
Bacterium Universal 16s rRNA	TCCTACGGGAGGCAGCAGT	GGACTACCAGGGTATCTAATCCTGTT
C. testosteroni 16s rRNA	CGAAAAGCCTGGGGCTAATAT	CCATCTCTGGTAAGTTCCTGC
C meningosepticum 16s rRNA	ACATGGTCACCACTTCGTGAGA	GTCGCATCCGTTGTTGTCACTT
DmMesh	CTTCTACGGCTTCCGATTCAACTAC	GTCCTACACGGCACTTGCTGAA
DmAstin		CCGACCCCTACACCCACACC
DmAcun		
Dm INK		
DINJINK		
Dmbox	CCCCCCAAACTGATTTCCTG	
Dm/mox		
DmArrestin 1		
Dimanosuni i		
The primers for double-strand RNA synthesis	Upper primer	Lower primer
The primers for double-strand RNA synthesis GFP	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG	Lower primer
The primers for double-strand RNA synthesis GFP AAEL004725	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCTTACAGAACGGCGGAGGATGG
The primers for double-strand RNA synthesis GFP AAEL004725 AAEL004725 (AaMesh)	Upper primer TAATACGACTCACTATAGGGGTGAGGAAGGGCGAGGAG TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCTTACAGAACGGCGGAGGATGG TAATACGACTCACTATAGGGACTCCGGCGCAAACACCACG
The primers for double-strand RNA synthesis GFP AAEL004725 AAEL005432 (AaMesh) AAEL005432 (AaMesh) AAEL005482	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG TAATACGACTCACTATAGGGTTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTTTGGCCCCCGACGAAATGAC	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCTTACAGAACGGCGGAGGATGG TAATACGACTCACTATAGGGACCTCCGCCGAAGACCACAG TAATACGACTCACTATAGGGTACGCCCCAGGCTCAGAACCCTAC
The primers for double-strand RNA synthesis GFP AAEL004725 AAEL005432 (AaMesh) AAEL005982 AAEL005985	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTTGGCCCCGTAGCGGCCATAAGTGC TAATACGACTCACTATAGGGTCGCCCGTGACGTACTTCTAT	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCTTACAGAACGGCGGAGGATGG TAATACGACTCACTATAGGGCACTCCGGCGCAAAACACCAG TAATACGACTCACTATAGGGCAGCGCATAGCCGCGCAAAAC TAATACGACTCACTATAGGGCAGCGCATAGCCGCGCAAAAT
The primers for double-strand RNA synthesis GFP AAEL004725 AAEL005432 (AaMesh) AAEL005982 AAEL006355 AAEL006355	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTGCCCTAGCCGGTCATTCAT	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGGCGGAGGATGG TAATACGACTCACTATAGGGCACACTCCGCGCCAAACACCAG TAATACGACTCACTATAGGGCACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCACGCCAAGTCGACTACTACCACACA TAATACGACTCACTATAGGGCCGCCAAGTCGACTACTACCACACACA
The primers for double-strand RNA synthesis GFP AAEL004725 AAEL005432 (AaMesh) AAEL005982 AAEL006385 AAEL006365 AAEL006361 AAEL006360	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTGTGGCCCGGGGCGCAAGAGGC TAATACGACTCACTATAGGGCGCCGCCGGCGCGTCATTTCAT TAATACGACTCACTATAGGGCCGCGCGCGCGCGCGTCATTCCAT TAATACGACTCACTATAGGGCCGACGCCGCGCGCGTCATTCCAT TAATACGACTCACTATAGGGCCCAGCGCCGCGCCGTTA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCTTACAGAACGGCGGAGGATGG TAATACGACTCACTATAGGGACTCCGGCGCAAACACCACA TAATACGACTCACTATAGGGGCACCAAGGCCAAAACCTAC TAATACGACTCACTATAGGGCGGCATAGTCGGGGCAACAT TAATACGACTCACTATAGGGCGGCCAGTCGACTCACTACG TAATACGACTCACTATAGGGCGGCCAGTCGACTCACTACG
The primers for double-strand RNA synthesis           GFP           AAEL004725           AAEL005432 (AaMesh)           AAEL005582           AAEL006355           AAEL000361           AAEL0008069           AAEL0008069	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGGTGCGCTAGCGGCCATAAGTGC TAATACGACTCACTATAGGGCGCGCGTTCATTTCAT TAATACGACTCACTATAGGGCGCCGCGTACAGTGTA TAATACGACTCACTATAGGGCGCCAGCAACATCAACAACAACAACAACAACAACAACAACAACAAC	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGG TAATACGACTCACTATAGGGCTTACAGAACGGCGAAGACGG TAATACGACTCACTATAGGGCACCCAGACCTACAAACCTAC TAATACGACTCACTATAGGGCGGCATAGTCGGGCACACT TAATACGACTCACTATAGGGCGGCCGACTCATCAGG TAATACGACTCACTATAGGGCGGCCCGATAGGCATAAGTCG TAATACGACTCACTATAGGGTGGCTCCGATAGGCATAAGTCG
The primers for double-strand RNA synthesis           GFP           AAEL004725           AAEL005432 (AaMesh)           AAEL006365           AAEL006355           AAEL006361           AAEL006369           AAEL008069           AAEL008829           AAEL008829           AAEL008829	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGCTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGACAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGACATAAGTGC           TAATACGACTCACTATAGGGTGCGCCTAGCGGCCCATTACGTGC           TAATACGACTCACTATAGGGCGCCGGCCCGTTCATTTCCTC           TAATACGACTCACTATAGGGGCCACGGGCCCTGAAGAGTGTA           TAATACGACTCACTATAGGGGCGCCCTGACGACCAACCAA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGCGGAGGATGG TAATACGACTCACTATAGGGCTTACAGAACGGCGCAAGACACCAG TAATACGACTCACTATAGGGTAGCCCCAAGCCAAAACCTAC TAATACGACTCACTATAGGGCGGCGACAGTCGGGGCAACAT TAATACGACTCACTATAGGGTGGCCGCCACGCGACTACTCGG TAATACGACTCACTATAGGGTGGCCCCCCATAGGCGATAGTCG TAATACGACTCACTATAGGGTGGCCCCCAAGGCACAGTCG TAATACGACTCACTATAGGGTGGCCCCCAAGGCACAGTCG
The primers for double-strand RNA synthesis           GFP           AAEL004725           AAEL005432 (AaMesh)           AAEL005982           AAEL006365           AAEL006361           AAEL008809           AAEL008829           AAEL008266           AAEL009266	Upper primer TAATACGACTCACTATAAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTGGCCCTGACGACAAAGGCC TAATACGACTCACTATAGGGTGCGCCAGCGCGTCATTTCAT TAATACGACTCACTATAGGGCGCGCGCGTTCATTTCCTC TAATACGACTCACTATAGGGGCGCACGGGCCGTGAGAGGTA TAATACGACTCACTATAGGGGGGGCCAAGGTCAACCGAACAA TAATACGACTCACTATAGGGGGGGGCCAAGGTCAACCGAACAA TAATACGACTCACTATAGGGGGGGGCCCCCCGGGTAGAGTTC TAATACGACTCACTATAGGGGGGGGCCCCCCGGGTAGAGTC	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCTTACAGAACGGCGGAGGATGG TAATACGACTCACTATAGGGCTTACAGAACGGCGAAGACACCAG TAATACGACTCACTATAGGGTACGCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCGGCATAGTCGGGGCAACAT TAATACGACTCACTATAGGGGTGGCTCCGATAGGCATAAGTCG TAATACGACTCACTATAGGGTGGCTCCGGATAGGCATAAGTCG TAATACGACTCACTATAGGGTAGCCCACACAGACAG TAATACGACTCACTATAGGGAAGCCCCACACACAGGACAG TAATACGACTCACTATAGGGTACCGCATAAGCATAAGCC TAATACGACTCACTATAGGGAAGCCCCACACAGACAGG
The primers for double-strand RNA synthesis           GFP           AAEL004725           AAEL005432 (AaMesh)           AAEL00555           AAEL006355           AAEL008069           AAEL008069           AAEL008266           AAEL002266           AAEL002266           AAEL002266	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGGTGAGCAAGGGCCACGAGGAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTGCGCTAGCGGCCATAAGTGC TAATACGACTCACTATAGGGCGGCGCGGCTTCATTTCAT	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGATGG TAATACGACTCACTATAGGGCACCCCGCCGCAAACACCAG TAATACGACTCACTATAGGGTACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCAGCGCATAGTCGGGCAAACAT TAATACGACTCACTATAGGGCGCGCATAGTCGGGCAACAT TAATACGACTCACTATAGGGCGCGCACGCCACAGGACAG TAATACGACTCACTATAGGGTGGCTCCGATAGGCGTAAGTCG TAATACGACTCACTATAGGGTCGCGGCAAACGCACAG TAATACGACTCACTATAGGGTCGCGGTAAACGCATAGGCG TAATACGACTCACTATAGGGTCGCGGTAAACGCATAGGCG TAATACGACTCACTATAGGGTCGCGCATCAGGCATAGGC TAATACGACTCACTATAGGGTCGCGCATCGGCATCAGC TAATACGACTCACTATAGGGTCCCCATCGGCTACCCCAA
The primers for double-strand RNA synthesis           GFP           AFL004725           AAEL005432 (AaMesh)           AAEL005355           AAEL006355           AAEL006369           AAEL00869           AAEL008929           AAEL009266           AAEL002452           AAEL0109266           AAEL012452           AAEL012452	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGCCACGGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTGCGCCTAGCGGCAGTAAGTGC           TAATACGACTCACTATAGGGCGCCGCGCGTGACGGCCTTACAT           TAATACGACTCACTATAGGGCGCGCGCGCGTGAGAGGGCGTA           TAATACGACTCACTATAGGGGCGGCCGGGCCATAGAGGGGTGTA           TAATACGACTCACTATAGGGGTGGGCCCCGGGCAAGAGACGAA           TAATACGACTCACTATAGGGGTGGGCCCCCGGGTAAGATTC           TAATACGACTCACTATAGGGGTGGCCCCCCCATCATCGAACC           TAATACGACTCACTATAGGGGTGGCCCCCCCATCATCAACC           TAATACGACTCACTATAGGGGTGGCCCCCCCATCATCAACC           TAATACGACTCACTATAGGGGTGGCCCCCCATCAAACC           TAATACGACTCACTATAGGGCTGGCCCTGCGCATAGAAGACC           TAATACGACTCACTATAGGGCTGGCCCTGCGCATAGAAGAC	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGTCGGCGAGGATGG TAATACGACTCACTATAGGGCTTACAGAACGGCGAAGACACCAG TAATACGACTCACTATAGGGTAGCCCACAGCAAAACCTAC TAATACGACTCACTATAGGGTAGCCCCAAGGCAAAACCTAC TAATACGACTCACTATAGGGTGGCCCCCAGCGACTACTACAGG TAATACGACTCACTATAGGGTAGCCCCCGATAGGCATAAGTCG TAATACGACTCACTATAGGGAAGGCCGCACGACAGGACAG TAATACGACTCACTATAGGGAAGGCCGCACGACAGGACAG TAATACGACTCACTATAGGGATGCCATAGGCTGCATAAGGC TAATACGACTCACTATAGGGCTGCCATAGGCATAAGCC TAATACGACTCACTATAGGGCTGCCCATCGGCTTCCCTCAA TAATACGACTCACTATAGGGCTGCCATCGGCTTCCCTCAA TAATACGACTCACTATAGGGCTGCCATCGGCTTCCCTCAA
The primers for double-strand RNA synthesis           GFP           AAEL004725           AAEL005432 (AaMesh)           AAEL005982           AAEL006365           AAEL006365           AAEL008069           AAEL008266           AAEL002266           AAEL012452           AAEL012455           AAEL012456           AAENT	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGCTGACGAAGGGCGAGGAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTGGCGCTAGCAGGAGGCGATAAGTGC TAATACGACTCACTATAGGGTGCGCCAGCGGCGCGTCATTTCAT TAATACGACTCACTATAGGGCGGCGCGCGTTCATTTCCTC TAATACGACTCACTATAGGGGGGCCACGGCCGTGAAGAGGTA TAATACGACTCACTATAGGGGGGGGCCAAGGTCAACCGAACAA TAATACGACTCACTATAGGGGGGGGCCAAGATCAACCGAACAA TAATACGACTCACTATAGGGGGGGGCCCCCCGGGTAAGATTC TAATACGACTCACTATAGGGGGGGCCCCCCATCATCACC TAATACGACTCACTATAGGGGTGGGCCCCCCATCATCCACC TAATACGACTCACTATAGGGGTGGGCCCCCCATCATTCAACC TAATACGACTCACTATAGGGGTGGGCCCCCCATCATTCAACC TAATACGACTCACTATAGGGGTGGGCCCCCCATCATTCAGACG TAATACGACTCACTATAGGGGTGGGCCCCCCAACAGATCTATCCA TAATACGACTCACTATAGGGCTGGGCCTCGGACAGAGCCTATTCCA TAATACGACTCACTATAGGGCTGGCCTCGGACAGAGCCTATTCCA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCTTACAGAACGGCGGAGGATGG TAATACGACTCACTATAGGGCTTACAGAACGGCGAAGATGG TAATACGACTCACTATAGGGCACCCAAGGCCAAAACCTAC TAATACGACTCACTATAGGGCGGCATAGTCGGGGCAACAT TAATACGACTCACTATAGGGCGGCAGTCGACTCATCAGG TAATACGACTCACTATAGGGTGGCTCCGGATAGGCATAAGTCG TAATACGACTCACTATAGGGTGGCTCCGGATAGGCATAAGTCG TAATACGACTCACTATAGGGAGGCCCGCACACAGGACAG TAATACGACTCACTATAGGGCTGCCGGGTAACGACTAGGC TAATACGACTCACTATAGGGCTCCGGGTAACGACAGGACAG TAATACGACTCACTATAGGGCTCCGGGTAACGACAGGACAG TAATACGACTCACTATAGGGCTCGCATCGGCTTCCCCAA TAATACGACTCACTATAGGGCGCGCGCCTCCACACCTTT TAATACGACTCACTATAGGGAGGGCCGTCCCACACCACTTT TAATACGACTCACTATAGGGAGGGCCCTGCCATCCACCTCAA
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL006355           AAEL006355           AAEL0008329           AAEL008298           AAEL008296           AAEL0012452           AAEL014356           AAArestin-a           AAArestin-a	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCCACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGACATAAGTGC           TAATACGACTCACTATAGGGTGCGCCGCGCCATGAGTGC           TAATACGACTCACTATAGGGCGCCGCGCCGGCCATAGATGC           TAATACGACTCACTATAGGGCGCCGCGCCGTGAAGAGTGTA           TAATACGACTCACTATAGGGGGGCCAAGAGTCAACCGAACAA           TAATACGACTCACTATAGGGGGGCCCCCCCGGCATAGAAGCA           TAATACGACTCACTATAGGGGTGGCCCCCCCATCATCAACC           TAATACGACTCACTATAGGGGCTCCGGCCATAGGATC           TAATACGACTCACTATAGGGGCTGTGGCCCCCCATCATTCAACC           TAATACGACTCACTATAGGGCTCCGGCCATAGGAAGC           TAATACGACTCACTATAGGGCTCTCCGACACAAGCATCATCCA           TAATACGACTCACTATAGGGCTCTCCGACACAAACCAATCATCCA           TAATACGACTCACTATAGGGCTCTCCGACACAAGCATCATCCA           TAATACGACTCACTATAGGGCTCCCACGACAAGCATCATCCA           TAATACGACTCACTATAGGGCTCCCACGACACAAGCATCATCCA           TAATACGACTCACTATAGGGCTCCCACGACACAAGCATCATCCA           TAATACGACTCACTATAGGGCTCCCACGACGAGTGGTCCTCCA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGTGGGGAGGATGG TAATACGACTCACTATAGGGACTCCGCGCGAAACACCAG TAATACGACTCACTATAGGGACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCGGCGCATAGTCGGGGCAACAT TAATACGACTCACTATAGGGGGGCCCCCACGACGACAGGACAG TAATACGACTCACTATAGGGAGGCCCCCACGACAGGACAG TAATACGACTCACTATAGGGGTCCCGATAGGCC TAATACGACTCACTATAGGGAGGCCGCACGACAGGACAG
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL005355           AAEL006361           AAEL006362           AAEL008069           AAEL009266           AAEL009266           AAEL01452           AAEL01452           AAEL01455           AAEL01455           AAEL01455           AAEL01455           AAEL01455           AAEL01455           AAArestin-b           AaArrestin-b           AaJNK	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTGCGCTAGCCGTCATTCAT           TAATACGACTCACTATAGGGTGCGCCCGACGTCATTCCAT           TAATACGACTCACTATAGGGCGCGCCGCGTTCATTTCCT           TAATACGACTCACTATAGGGCGCGCCGCGTCATTCCAT           TAATACGACTCACTATAGGGGCGCCAGGCCCGTGAGAGGTGA           TAATACGACTCACTATAGGGGGGGCCCAGGCCCGAGACAACAA           TAATACGACTCACTATAGGGGTGGCCCCCCATCATCATCCAACCGAACAA           TAATACGACTCACTATAGGGGTGGCCCCCCCCATACATCCAACCACAACACC           TAATACGACTCACTATAGGGCTGCGCCCCCCATACAAGAGC           TAATACGACTCACTATAGGGCTGCGCCCCCCATACATCAACCAAAGACCACACTCACT	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATTACAGAACGGCGGAGGATGG TAATACGACTCACTATAGGGCATCAGGCCAAACACCAG TAATACGACTCACTATAGGGGCGCAAAGCCACAG TAATACGACTCACTATAGGGCGGCATAGTCGGGGCAAACAT TAATACGACTCACTATAGGGTGGCTCCGATAGGCATAACTCAGG TAATACGACTCACTATAGGGTGGCCCCGATAGGCATAAGTCG TAATACGACTCACTATAGGGTAGCCCGCATAGGCATAGTCG TAATACGACTCACTATAGGGTAGCCGCATAGCATA
The primers for double-strand RNA synthesis           GFP           AAEL005432 (AaMesh)           AAEL005432 (AaMesh)           AAEL005432 (AaMesh)           AAEL005432 (AaMesh)           AAEL005582           AAEL006365           AAEL008069           AAEL008029           AAEL009266           AAEL012452           AAEL012456           AAEArrestin-a           AaArrestin-a           AaJNK           AaENK	Upper primer TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG TAATACGACTCACTATAGGGGTGGCCACGGGGCCTCACAAACAG TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC TAATACGACTCACTATAGGGTGGCCCGACGCGTCACTATAGGTC TAATACGACTCACTATAGGGTGCGCTAGCCGGTCACTTCCAT TAATACGACTCACTATAGGGGCGCCACGGCCGTGAAGAGTGTA TAATACGACTCACTATAGGGGGGCCAAGAGCACACCGAACAA TAATACGACTCACTATAGGGGGGCCAAGAGCACACCGAACAA TAATACGACTCACTATAGGGGGGCCAAGAGTCACCGAACAA TAATACGACTCACTATAGGGGTGGGCCCACGGCAAGAGTCA TAATACGACTCACTATAGGGGTGGGCCCACGACACGAACAA TAATACGACTCACTATAGGGGTGGGCCCCGGGTAAGAGTC TAATACGACTCACTATAGGGGTGGGCCCCCGACATGAAGC TAATACGACTCACTATAGGGCTGGGCCTCCGACAAGATCATCCA TAATACGACTCACTATAGGGCTGGCCCCCGACAAGATCACCA TAATACGACTCACTATAGGGCTCGGCCTCCGACAGACTCATCCA TAATACGACTCACTATAGGGCTCCGACAGACTCATCCA TAATACGACTCACTATAGGGCTCCGACAGACTCATCCA TAATACGACTCACTATAGGGCTCCGAAGAGTCGTCCCGTGGC TAATACGACTCACTATAGGGCTCCGAAGAGTCGTCCCGGTACA TAATACGACTCACTATAGGGATTGGGCTCCGCGTACA TAATACGACTCACTATAGGGATTGGGCTCCGCGCGG TAATACGACTCACTATAGGGATTGGCCTCCGCGTACA TAATACGACTCACTATAGGGATTGGCCTCCGCGTACA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGAG TAATACGACTCACTATAGGGCACTCCGCCGCAAACACCAG TAATACGACTCACTATAGGGTACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCGCGATAGTCGGGCAAACAC TAATACGACTCACTATAGGGCGCGCATGGCGCACACT TAATACGACTCACTATAGGGCGCGCACGCACAGGACAC TAATACGACTCACTATAGGGTGGCTCCGATAGGCG TAATACGACTCACTATAGGGTCGGCTACGGCATAGTCG TAATACGACTCACTATAGGGTCGCGCACGGCAACGCACAG TAATACGACTCACTATAGGGTCGCCCCACGGCAACGCACAG TAATACGACTCACTATAGGGCTCCGGTAACGCCATGAGC TAATACGACTCACTATAGGGCTCCGGTAACGCCATGAGC TAATACGACTCACTATAGGGCTCCGCATCGGCTTCCCTCAA TAATACGACTCACTATAGGGCCCCCACGGCATCACCCT TAATACGACTCACTATAGGGCGCTCGCATCGGCTTCCCTCAA TAATACGACTCACTATAGGGCGCTCGCATCGGCTCCCCCCT TAATACGACTCACTATAGGGCGCTTGCCTGCAGCATTT TAATACGACTCACTATAGGGCGCTTGCCTGCGGTGACTTCGT TAATACGACTCACTATAGGGCGGTCTGCCTGCAGCATTT TAATACGACTCACTATAGGGAGGCGCCCAGCGGCTTCCCTCGA
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL005302           AAEL003055           AAEL000335           AAEL000361           AAEL0008069           AAEL0009266           AAEL014356           AAEL014356           AAArrestin-b           AAArrestin-b           AAE/RK           AAE/RK	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGACATAAGTGC           TAATACGACTCACTATAGGGTTGGCCCCGACGACGATAAGTGC           TAATACGACTCACTATAGGGTGCGCCTGACGGCCATTACGTGC           TAATACGACTCACTATAGGGCTGCGGCCCTGACGAGAGTGTA           TAATACGACTCACTATAGGGCGCGCGTGAGGACTCACCGAACAA           TAATACGACTCACTATAGGGGTGGGCCTCCGGGTAAGATCA           TAATACGACTCACTATAGGGGTGGGCCTCGGGCATAGAGAGC           TAATACGACTCACTATAGGGCTGGGCCTCCGGGCATAGAAGC           TAATACGACTCACTATAGGGCTGGGCCTCGGGCATAGAAGC           TAATACGACTCACTATAGGGGCTGCGGCATCGACAAGAGC           TAATACGACTCACTATAGGGCTCCAAGGAGTTGGTCCTGCCG           TAATACGACTCACTATAGGGCTCCAAGGAGACTTGGTCCTGCG           TAATACGACTCACTATAGGGACATTGGACCCTGCCGTACA           TAATACGACTCACTATAGGGACATTGGACCCTGCCGGACAAGAGC           TAATACGACTCACTATAGGGACATTGGACCCTGCCGGTACA           TAATACGACTCACTATAGGGAATTGGACCCCGCGTACA           TAATACGACTCACTATAGGGAATTGGACCCACGCCCG           TAATACGACTCACTATAGGGAATTGGTCCTGCCGCCGGTACA           TAATACGACTCACTATAGGGAATTGGTCCTGCCGCGGTACA           TAATACGACTCACTATAGGGAATTGGTCCTGCCCCCCCGGTACA           TAATACGACTCACTATAGGGAATTGGTCCTGCCAACGACCCCG           TAATACGACTCACTATAGGGAATTGGTCCTGCCAACGACCCCG           TAATACGAC	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGAGATGG TAATACGACTCACTATAGGGCATCCGCGCGAAACACCAG TAATACGACTCACTATAGGGTAGCCCCAAGCTAAAACCTAC TAATACGACTCACTATAGGGTGGCGCATAGTCGGGCAACAT TAATACGACTCACTATAGGGTGGCCCCAAGCGCATAGTCG TAATACGACTCACTATAGGGTGCCCCGATGGCGATAGTCG TAATACGACTCACTATAGGGTGCCCGATGGCATAGTCG TAATACGACTCACTATAGGGTCCCCGATGGCATAGTCG TAATACGACTCACTATAGGGCTCCCCATGGCTACGACTACATGA TAATACGACTCACTATAGGGCTCCCCATGGCTACGCATAGTCG TAATACGACTCACTATAGGGCCCCCACGGCAACGACAG TAATACGACTCACTATAGGGCCCCCATGGCTTCCCTCAA TAATACGACTCACTATAGGGCCCCCATGGCTTCCCCCAA TAATACGACTCACTATAGGGCCCCTCACCACTTT TAATACGACTCACTATAGGGCCCCTCGCTCGCACCACTT TAATACGACTCACTATAGGGCCCCTTGCCTGCAGTGACTTGTTCGT TAATACGACTCACTATAGGGACGCCTCTGCCTGCACGACTT TAATACGACTCACTATAGGGACGCCGCAGCACGACAGATT TAATACGACTCACTATAGGGACCCCAGGCACTCCCCCA TAATACGACTCACTATAGGGACCCCAGGCACTCCCCCAG TAATACGACTCACTATAGGGACCCCAGGCACTCCCCCGA TAATACGACTCACTATAGGGACCCCAGGCACTCCCCCGA
The primers for double-strand RNA synthesis           GFP           AAEL005432 (AaMesh)           AAEL005432 (AaMesh)           AAEL006365           AAEL006355           AAEL008361           AAEL008209           AAEL008209           AAEL008209           AAEL008206           AAEL012452           AAEL014356           AAAEN3456           AAARestin-a           AaArestin-b           AaAINK           ABFX           ABFX           AAF238           AP38	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTGGCCCTGACCGGCATAAGTGC           TAATACGACTCACTATAGGGTGGCCCTAGCCGGTCATTTCAT           TAATACGACTCACTATAGGGCGCGCGCGTTTCATTTCCTC           TAATACGACTCACTATAGGGCGGCCCATGGCCGTGAGAGGTGA           TAATACGACTCACTATAGGGGGGGCCAAGATCAACCGAACAA           TAATACGACTCACTATAGGGGTGGGCCCCCCCATCATCCAACCGAACAA           TAATACGACTCACTATAGGGGTGGGCCCCCCCCCATCATCAACCG           TAATACGACTCACTATAGGGGTGGCCCCCCCCATCATCAACACG           TAATACGACTCACTATAGGGGCTGGCCCCCCCCATCATCAACACC           TAATACGACTCACTATAGGGCTCGTGGCGTCCGGCATAGAAGC           TAATACGACTCACTATAGGGCTCCTGGACAGGAGTTGTCCTGTGC           TAATACGACTCACTATAGGGCTCCAGAGAGTGCTCCTGCC           TAATACGACTCACTATAGGGCTCCAGGAGATGTGTCCTGTGC           TAATACGACTCACTATAGGGATTTGAGGTCCCTTCGCGGTACA           TAATACGACTCACTATAGGGATTGAGGTCCCTTCCGCGGTACA           TAATACGACTCACTATAGGGATTGAGGTCCCTTCCCGGGTACA           TAATACGACTCACTATAGGGATGGTACCGAGCGCCG           TAATACGACTCACTATAGGGATCGTGTCTGTCCACGACCCCG           TAATACGACTCACTATAGGGATGGTACCGACCGGCCG           TAATACGACTCACTATAGGGCTCATTCAACAACAACACACCAACACCAA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATTACAGACGCGCAGGATGG TAATACGACTCACTATAGGGCATCACGCCAAACACCAG TAATACGACTCACTATAGGGCACCCAAGCCCAAACACCAG TAATACGACTCACTATAGGGCGCGCATAGTCGGGCCAACAT TAATACGACTCACTATAGGGCGGCCATAGTCGGCCAACACT TAATACGACTCACTATAGGGTGGCCCCCATAGGCATAAGTCG TAATACGACTCACTATAGGGTAGCCCGCATAGGCATAAGTCG TAATACGACTCACTATAGGGTAGCCCGCATAGGCATAAGTCG TAATACGACTCACTATAGGGTAGCCCCCACGACACATAG TAATACGACTCACTATAGGGTAGCCCCCACGACAGACAG TAATACGACTCACTATAGGGATGCCCCATAGGCATAAGCATAAGCC TAATACGACTCACTATAGGGATGCCCCATCGGCTACACATTT TAATACGACTCACTATAGGGCGCGCATCGCTCCCCAACACATTT TAATACGACTCACTATAGGGAGGGCGCGTCCAACCACTTT TAATACGACTCACTATAGGGAGGGCCTTGCCTGAGTTGTTCGT TAATACGACTCACTATAGGGAGGCCTTGCGCGAGTGGTTGTTCGT TAATACGACTCACTATAGGGAGGCCCCACGGCTCCCCGA TAATACGACTCACTATAGGGAGCCCCAGGGCTTCCTCGG TAATACGACTCACTATAGGGAGCCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGAGCCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGAGCCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGAGCCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGAGCCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGACCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGACCCCAGAGATT TAATACGACTCACTATAGGGACCCCAGGCTTCCTCGA TAATACGACTCACTATAGGGACCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGACCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGACCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGACCCCAGGGCTTCCTCGA
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL006365           AAEL006355           AAEL0008329           AAEL008298           AAEL008296           AAEL014356           AAArestin-a           AaArrestin-b           AaJNrK           AaERK           AaP38           AaPl3K           AaMyd88	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCCGACGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGACATAAGTGC           TAATACGACTCACTATAGGGTGCGCGCGTACGTGC           TAATACGACTCACTATAGGGTGCGCGCGCGCCATGAGTGC           TAATACGACTCACTATAGGGGCCCGGGCCATGAGAGCGC           TAATACGACTCACTATAGGGGCCCCGGGCCATGAAGAGTGA           TAATACGACTCACTATAGGGGGCCCCATGCAGGGCCATGAAGATC           TAATACGACTCACTATAGGGGTCGCCCCCATCAATCAACC           TAATACGACTCACTATAGGGGCTCCTGGCGCCATAGAAGAC           TAATACGACTCACTATAGGGGCTCCCCAGGGAAGAATCATCCA           TAATACGACTCACTATAGGGGCCCCCAAGGAAGTCATCCAA           TAATACGACTCACTATAGGGACTCCCTCCGAACGAAGCATCATCCA           TAATACGACTCACTATAGGGAAGATTGACGCCCCGGCATAGAAAGC           TAATACGACTCACTATAGGGAACATTGACGTCCCTACGGGACA           TAATACGACTCACTATAGGGAACGATTGACGGCCCG           TAATACGACTCACTATAGGGAACGATTGACCGACGCCG           TAATACGACTCACTATAGGGAACTGTTCTCCAACAACACACCACACCCACA           TAATACGACTCACTATAGGGACTCGTTCTGCAACGAGACA           TAATACGACTCACTATAGGGACCGCCGC           TAATACGACTCACTATAGGGACCCCACACACACACACACA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGTGGGGAGATGG TAATACGACTCACTATAGGGCATCCGGCGCAAACACCAG TAATACGACTCACTATAGGGTACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGGCGCATAGTCGGGCAAACACTAC TAATACGACTCACTATAGGGGCGCCACGCCGACTGATCGG TAATACGACTCACTATAGGGTGGCCCGATAGGCCATAGTCG TAATACGACTCACTATAGGGTGCGCGCACGGCAAGCACA TAATACGACTCACTATAGGGTCGCGGCAACGCACAGGACAG TAATACGACTCACTATAGGGTCGCGGCAACGCAAGGACAG TAATACGACTCACTATAGGGTCGCGGTAACGCCATAGTCG TAATACGACTCACTATAGGGTCGCCGGCAACGCACTGACC TAATACGACTCACTATAGGGTCGCGCACGGCATGACC TAATACGACTCACTATAGGGTCGCGCACGGCATGACC TAATACGACTCACTATAGGGCTCGCACTGGCTTCCCTCAA TAATACGACTCACTATAGGGCCCTGCACTGGCTTCCCCCCA TAATACGACTCACTATAGGGCGGTCTTGCGTGAGTTGTTCGT TAATACGACTCACTATAGGGACGCCCAGGCCTCCCCCA TAATACGACTCACTATAGGGACGCCCAGGCCTCCCTCGA TAATACGACTCACTATAGGGACGCCCAGGCCTCCTCCGA TAATACGACTCACTATAGGGACGCCCAGGGCTCCTCCGA TAATACGACTCACTATAGGGACGCCCAGGAGTTCGTTGATAGA TAATACGACTCACTATAGGGACCCGAGAGTTGATAATCGGGTG TAATACGACTCACTATAGGGACTGCGAAGTTGATAATCGGGTG TAATACGACTCACTATAGGGACCGCAGGCCTTGCTGATAGA TAATACGACTCACTATAGGGACCGCAGGCCTTCATAGGA
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL005355           AAEL006355           AAEL00036982           AAEL0008069           AAEL0008069           AAEL001452           AAEL01452           AAEL01455           AAEL01452           AAEL01452           AAEL01452           AAEL01452           AAEL01456           AAArestin-b           AaJNIK           ABERK           ABF38           ABF38           ABF38           AB/Wd88           Aalmd	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGCTCACCAGGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTGCGCTAGCGCGTCATTTCAT           TAATACGACTCACTATAGGGCGCGCGCGTGAGAGAGGTA           TAATACGACTCACTATAGGGGCGGCCCGGCCAGAGAGAGGTA           TAATACGACTCACTATAGGGGTGGGCCCCCGGGCATAGAGATGTA           TAATACGACTCACTATAGGGGTGGGCCCCCGGGCATAGAATC           TAATACGACTCACTATAGGGCTGGGCCCCCGGCATAGAAGC           TAATACGACTCACTATAGGGCTCCCAAGGACGACTATCAAA           TAATACGACTCACTATAGGGCTCCCAAGGACGACTATACA           TAATACGACTCACTATAGGGAATGGCCCCAAGACGACTATACA           TAATACGACTCACTATAGGGAATGGTACCAAGAGACTGACT	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATTACAGAACGGCGGAGGATGG TAATACGACTCACTATAGGGCATCGCCGACGCAACACCAG TAATACGACTCACTATAGGGTAGCCCCAAGCCAAAACCTAC TAATACGACTCACTATAGGGTGGCGCCAAGCTACTACAGG TAATACGACTCACTATAGGGTGGCTCCGGATGGGCAACAT TAATACGACTCACTATAGGGTGGCTCCGCTAGGCTAAGTGG TAATACGACTCACTATAGGGAGGCGCGCACGATAGTGG TAATACGACTCACTATAGGGAGGCGCGCACGATAGTGG TAATACGACTCACTATAGGGAGGCGCGCACGATAGTGG TAATACGACTCACTATAGGGCGCGCATCGGCTCCACCATA TAATACGACTCACTATAGGGCGCGCACGACAGGACAG
The primers for double-strand RNA synthesis           GFP           AAEL00725           AAEL00725           AAEL00352           AAEL00355           AAEL003355           AAEL008361           AAEL008362           AAEL00829           AAEL00829           AAEL009266           AAEL014356           AAEL014356           AAEAR           AAAR           AAEAR           AAAR           AAEAR           AAAR           AAEAR           AAAR           AAEAR           AAAR           AAAR           AAAR           AAAR <td>Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGAGCAACAGG           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGAGCAATGAC           TAATACGACTCACTATAGGGTGGCCCCGAGCAATGAC           TAATACGACTCACTATAGGGTGGCCCTAGCCGGCATAAGTGC           TAATACGACTCACTATAGGGTGCGCCCGCGCGTCATTTCAT           TAATACGACTCACTATAGGGCGGCGCGCGTTCATTTCCT           TAATACGACTCACTATAGGGGGGGCCAAGGTCAACCGAACAA           TAATACGACTCACTATAGGGGTGGGCCCCCCGGGTAAGATC           TAATACGACTCACTATAGGGGTGGCCCCCCCGGTAAGATC           TAATACGACTCACTATAGGGGTGGCCCCCCCCCATCATTCAACC           TAATACGACTCACTATAGGGGTGGCCCCCCCGGATAGAACC           TAATACGACTCACTATAGGGCTCGGCGCCCCCGACAACGACCCCG           TAATACGACTCACTATAGGGCCCTCCGAACGACGACTGTGCC           TAATACGACTCACTATAGGGACTGCTGCTCGCGCGACAACGACCCCG           TAATACGACTCACTATAGGGACTCGTCTGCCGACAACGACCCG           TAATACGACTCACTATAGGGACTGGTCCTTCGCCGACAC           TAATACGACTCACTATAGGGCCTATCAACAACAACCCAACCAA</td> <td>Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGAGG TAATACGACTCACTATAGGGCACTCCGCCGAAACACCAG TAATACGACTCACTATAGGGTACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCGCGCATAGTCGGGCAACAT TAATACGACTCACTATAGGGCGCGCATAGTCGGGCAACAT TAATACGACTCACTATAGGGTGGCTCCGATAGGCATAGTCG TAATACGACTCACTATAGGGTGGCTCCGGTAAGCGGC TAATACGACTCACTATAGGGTCGGCTACGCGGTAAGTCG TAATACGACTCACTATAGGGTCGGCTACGCGATAGGCC TAATACGACTCACTATAGGGTCGGCTACGGCATAGGCC TAATACGACTCACTATAGGGCTCGGATAGGCCCCACGACAGGACAG TAATACGACTCACTATAGGGCTCGGATAGGCCCCACGGCATCAGC TAATACGACTCACTATAGGGCTCGGATAGGCCCCCCCCTCAA TAATACGACTCACTATAGGGCCCGCGTCAGCATTGGC TAATACGACTCACTATAGGGCCTCGGCTTCCCCCCAA TAATACGACTCACTATAGGGCGCCTGGCTTCCCCCACAGTTT TAATACGACTCACTATAGGGAGGCGCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGAGCCGCAAGGGCTCCCTCGA TAATACGACTCACTATAGGGACGCCAAGGCTTCCTCGA TAATACGACTCACTATAGGGACCCGTAGAATCTGATAGA TAATACGACTCACTATAGGGACCCGAAGATTGATAATCGGGCT TAATACGACTCACTATAGGGGCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGACCGCAAGGCTTGCTACATC TAATACGACTCACTATAGGGACCGCAAGGCTTGCTGATAGG TAATACGACTCACTATAGGGGCACGGCATGCTAACGCGCAT TAATACGACTCACTATAGGGCACGCAAGGCTTCCTCGA TAATACGACTCACTATAGGGACTGGAAGTTGATAATCGGCTG TAATACGACTCACTATAGGGGCACGCAAGGCTTTGCTACATC TAATACGACTCACTATAGGGGCACGGCATTGCTACATC TAATACGACTCACTATAGGGGCACGGCATTGCTACATC TAATACGACTCACTATAGGGGCACGCAAGTTTTCATACGACTTCC TAATACGACTCACTATAGGGGCACGCAAGGTTTTCCATACGGCACTC TAATACGACTCACTATAGGGGCACGCAAGGTTTTCCGCCA</td>	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGAGCAACAGG           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGAGCAATGAC           TAATACGACTCACTATAGGGTGGCCCCGAGCAATGAC           TAATACGACTCACTATAGGGTGGCCCTAGCCGGCATAAGTGC           TAATACGACTCACTATAGGGTGCGCCCGCGCGTCATTTCAT           TAATACGACTCACTATAGGGCGGCGCGCGTTCATTTCCT           TAATACGACTCACTATAGGGGGGGCCAAGGTCAACCGAACAA           TAATACGACTCACTATAGGGGTGGGCCCCCCGGGTAAGATC           TAATACGACTCACTATAGGGGTGGCCCCCCCGGTAAGATC           TAATACGACTCACTATAGGGGTGGCCCCCCCCCATCATTCAACC           TAATACGACTCACTATAGGGGTGGCCCCCCCGGATAGAACC           TAATACGACTCACTATAGGGCTCGGCGCCCCCGACAACGACCCCG           TAATACGACTCACTATAGGGCCCTCCGAACGACGACTGTGCC           TAATACGACTCACTATAGGGACTGCTGCTCGCGCGACAACGACCCCG           TAATACGACTCACTATAGGGACTCGTCTGCCGACAACGACCCG           TAATACGACTCACTATAGGGACTGGTCCTTCGCCGACAC           TAATACGACTCACTATAGGGCCTATCAACAACAACCCAACCAA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGAGG TAATACGACTCACTATAGGGCACTCCGCCGAAACACCAG TAATACGACTCACTATAGGGTACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCGCGCATAGTCGGGCAACAT TAATACGACTCACTATAGGGCGCGCATAGTCGGGCAACAT TAATACGACTCACTATAGGGTGGCTCCGATAGGCATAGTCG TAATACGACTCACTATAGGGTGGCTCCGGTAAGCGGC TAATACGACTCACTATAGGGTCGGCTACGCGGTAAGTCG TAATACGACTCACTATAGGGTCGGCTACGCGATAGGCC TAATACGACTCACTATAGGGTCGGCTACGGCATAGGCC TAATACGACTCACTATAGGGCTCGGATAGGCCCCACGACAGGACAG TAATACGACTCACTATAGGGCTCGGATAGGCCCCACGGCATCAGC TAATACGACTCACTATAGGGCTCGGATAGGCCCCCCCCTCAA TAATACGACTCACTATAGGGCCCGCGTCAGCATTGGC TAATACGACTCACTATAGGGCCTCGGCTTCCCCCCAA TAATACGACTCACTATAGGGCGCCTGGCTTCCCCCACAGTTT TAATACGACTCACTATAGGGAGGCGCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGAGCCGCAAGGGCTCCCTCGA TAATACGACTCACTATAGGGACGCCAAGGCTTCCTCGA TAATACGACTCACTATAGGGACCCGTAGAATCTGATAGA TAATACGACTCACTATAGGGACCCGAAGATTGATAATCGGGCT TAATACGACTCACTATAGGGGCCCAGGGCTTCCTCGA TAATACGACTCACTATAGGGACCGCAAGGCTTGCTACATC TAATACGACTCACTATAGGGACCGCAAGGCTTGCTGATAGG TAATACGACTCACTATAGGGGCACGGCATGCTAACGCGCAT TAATACGACTCACTATAGGGCACGCAAGGCTTCCTCGA TAATACGACTCACTATAGGGACTGGAAGTTGATAATCGGCTG TAATACGACTCACTATAGGGGCACGCAAGGCTTTGCTACATC TAATACGACTCACTATAGGGGCACGGCATTGCTACATC TAATACGACTCACTATAGGGGCACGGCATTGCTACATC TAATACGACTCACTATAGGGGCACGCAAGTTTTCATACGACTTCC TAATACGACTCACTATAGGGGCACGCAAGGTTTTCCATACGGCACTC TAATACGACTCACTATAGGGGCACGCAAGGTTTTCCGCCA
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL006355           AAEL006355           AAEL000809           AAEL008069           AAEL008026           AAEL0014252           AAEL014356           AaArestin-b           AAArestin-b           AAERX           AAERS           AAERX           AABAW388           Aalmyd           Aalmod           AaAkt           Aabne	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGCGTAAGTGC           TAATACGACTCACTATAGGGCTGCGCGCGGCCATAGGTGC           TAATACGACTCACTATAGGGCGCCCGGCCCAGGAGAGGTA           TAATACGACTCACTATAGGGGGGCCAAGAGTCAACCGAACAA           TAATACGACTCACTATAGGGGTGGGCCCCCAGCGATAGAAGC           TAATACGACTCACTATAGGGGTGGGCCCCCATCATTCAACCG           TAATACGACTCACTATAGGGGTGGCCCCCATCATTCAACC           TAATACGACTCACTATAGGGCTGCCCGGCCATAGAAGC           TAATACGACTCACTATAGGGCTCCCAGGGAGTGGTCCTGACCA           TAATACGACTCACTATAGGGCTCCCCCAGGGAGAGACTCATCCA           TAATACGACTCACTATAGGGCTCCCAAGGAGTTGGTCCTGGC           TAATACGACTCACTATAGGGAATGTGTTCTCCAAGGAAGCA           TAATACGACTCACTATAGGGAACGTCGTTCTCAACAACTCACCAATCTG           TAATACGACTCACTATAGGGCCACTGGTGGTGTTACCAATCGG           TAATACGACTCACTATAGGGAAGCCTTCTACCAATGGTGTGTTAT           TAATACGACTCACTATAGGGAAGGCCTTCTACCAATGGTGTTATA           TAATACGACTCACTATAGGGACGCAGGGCGCGCG           TAATACGACTCACTATAGGGACGCACGACGATGGTGTTACCAATCGG           TAATACGACTCACTATAGGGACGCACGTTGCACCAGCAGGTGCCAG           TAATACGACTCACTATAGGGACACGTACGGAGGCCTTCTCACCAATGGA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGTGGGGAGGATGG TAATACGACTCACTATAGGGACTCCGCCGCAAACACCAG TAATACGACTCACTATAGGGACGCCCAAGCTAAAACCTAC TAATACGACTCACTATAGGGCGGCGCATAGTCGGGGCAACAT TAATACGACTCACTATAGGGGGGCGCCCCACGCAGGACAG TAATACGACTCACTATAGGGGGCGCCCCACGCAGGACAG TAATACGACTCACTATAGGGAGGCGCCCCACGACAGGACAG TAATACGACTCACTATAGGGAGGCGCCCCACAGGACAG TAATACGACTCACTATAGGGAGGCGCCCCACAGGACAG TAATACGACTCACTATAGGGGCTCCGCATAGGCC TAATACGACTCACTATAGGGGCTCCGCATGGCT TAATACGACTCACTATAGGGGCTCGCATCAGGCATAGTCG TAATACGACTCACTATAGGGCTCGCATCGGCTTCCCTCAA TAATACGACTCACTATAGGGCCTGCCCCACGCACAGGACAG TAATACGACTCACTATAGGGCCTGCCCCACGCACGACAGCACAG TAATACGACTCACTATAGGGCCTGCGCATGGCTTCCCTCAA TAATACGACTCACTATAGGGCGCTCGCCAGGCACACGATT TAATACGACTCACTATAGGGACGCCCAGGCCTCCCCCG TAATACGACTCACTATAGGGACGCCCAGGCCTCCCCGCA TAATACGACTCACTATAGGGACGCCCAGGCCTCCCCGCA TAATACGACTCACTATAGGGACGCCCAGGCCTCCCCGCA TAATACGACTCACTATAGGGACGCCCAGGCATTCCTCGA TAATACGACTCACTATAGGGACGCCCAGGCATTCCTCGGA TAATACGACTCACTATAGGGCCCAGGCATTCCTCGGA TAATACGACTCACTATAGGGCCCAGGCATTGTATAGA TAATACGACTCACTATAGGGCCCAGGCATTGCTAACAATC TAATACGACTCACTATAGGGCCACGCAGGCTTTCCTCGA TAATACGACTCACTATAGGGCCCAGGCATTCACATC TAATACGACTCACTATAGGGCCCAGGCATTGCTAACAATC TAATACGACTCACTATAGGGCCACGGCATTGCTAACAATC TAATACGACTCACTATAGGGCCCAGGCACGCATGCTAACACTC TAATACGACTCACTATAGGGGCACGCAGTGTTTAACACATC TAATACGACTCACTATAGGGGCCACGGCACGCATGCTACACATC TAATACGACTCACTATAGGGGCCACGGCACGCATGCTACACATC TAATACGACTCACTATAGGGGCCCGTGGTTGCCACATATACGCCA
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL005355           AAEL0003355           AAEL0003364           AAEL0003355           AAEL000369           AAEL000369           AAEL000266           AAEL014356           AAEL014356           AAArestin-b           AaArrestin-b           AaB/NK           ABP38           AB/NK           Aalmd           Aalmd           Aalmd           Aalmd           Aabrestin-1	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTCGCCTAGCCGTCATTTCAT           TAATACGACTCACTATAGGGCGCCGCGCGTAAGAGTGA           TAATACGACTCACTATAGGGGCGCCGGCCATGAGAGACGTA           TAATACGACTCACTATAGGGGTGGGCCTCCGGGTAAGATTC           TAATACGACTCACTATAGGGGTGGCCCCCCGCCATCAAGAGC           TAATACGACTCACTATAGGGCTGCGACCCCACGACTAGAAGC           TAATACGACTCACTATAGGGCTCCCAAGGACGACTCATCCA           TAATACGACTCACTATAGGGCTCCCAAGGACGACGACCGTCCGGC           TAATACGACTCACTATAGGGACGCCCCAAGGACGACCGTCCCGGTACA           TAATACGACTCACTATAGGGAACGGACTCATCCAACGACCGCG           TAATACGACTCACTATAGGGACGCTCATCAACAACATCCCAATCTG           TAATACGACTCACTATAGGGACGCTCATCAACAACACACCACCAATCTG           TAATACGACTCACTATAGGGACGCTCATCAACAACATCCCAATCTG           TAATACGACTCACTATAGGGACGCTCATCAACAACATCACCAATCTG           TAATACGACTCACTATAGGGACGCTACCAAGCATCACCAATCTG           TAATACGACTCACTATAGGGACCGTACGAGGCCTTCACCAATGTAA           TAATACGACTCACTATAGGGACCATCACCAACCACCAATCAG           TAATACGACTCACTATAGGGACCCTACCACAGCAACCTT           TAATACGACTCACATATAGGGACGCATCTCACCACGAAACTT	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGAGATGG TAATACGACTCACTATAGGGCCTCACGACGCCAAACACCAG TAATACGACTCACTATAGGGCGCCCAAGCCAAAACCTAC TAATACGACTCACTATAGGGCGGCGCATAGTCGGGCGAACAT TAATACGACTCACTATAGGGTGCCCCCGATAGCGACTACATGG TAATACGACTCACTATAGGGTGCCCCCGATAGCGATAGTCG TAATACGACTCACTATAGGGCGCCACGCACACATGG TAATACGACTCACTATAGGGTGCCCCCGATAGCGATAGTCG TAATACGACTCACTATAGGGATGCCGCATCGGCTCCACCATG TAATACGACTCACTATAGGGCTGCCATCGGCTCCCTCAA TAATACGACTCACTATAGGGCCTCCACTGCGCTCCCCTCAA TAATACGACTCACTATAGGGCCGCCTCCAACCATTT TAATACGACTCACTATAGGGCCGCCTCCACCACCATTT TAATACGACTCACTATAGGGCCGCCTTGCCTGGCAGCGTCCTCGT TAATACGACTCACTATAGGGAGGCCCTTGCCTGGCACGATTGTT TAATACGACTCACTATAGGGAGGCCCTTGCCTGGCACGGTTCTCGT TAATACGACTCACTATAGGGAGCCCCTAGACTTGCTGGGAGTTGTTGCT TAATACGACTCACTATAGGGAGCCCCTGACATGTATAGG TAATACGACTCACTATAGGGACCCCTGGCACGGCTTCCTCGA TAATACGACTCACTATAGGGACCCCTGACATTGCTAAGA TAATACGACTCACTATAGGGACCCGTGACATGCTAAGA TAATACGACTCACTATAGGGACCCGTGACATGCTAAGAT TAATACGACTCACTATAGGGATCGCGATGGACTGCAACATC TAATACGACTCACTATAGGGGACCCGCATTGCTAACATC TAATACGACTCACTATAGGGGACCCGGCATTGCTAACATC TAATACGACTCACTATAGGGGACGCGCGCTTCCCGCCA TAATACGACTCACTATAGGGGACCGCGCTTTTCGACCACTC TAATACGACTCACTATAGGGGTACCCGGATGGTTTTCAACACTC TAATACGACTCACTATAGGGGACCGCGTTCCCGCCA TAATACGACTCACTATAGGGGACCGCGATTGCTAACATC TAATACGACTCACTATAGGGGACGCGGTTCTCGGCCA TAATACGACTCACTATAGGGGCACGCGTTTCCGCCCA TAATACGACTCACTATAGGGGACGCGCATTGCTAACATC TAATACGACTCACTATAGGGGCACGCGATTCCGCCCA TAATACGACTCACTATAGGGGCACGCGATTCTCGCCCA TAATACGACTCACTATAGGGGACCGCGATTCCCGCCA TAATACGACTCACTATAGGGGACCGCGATTCCGCCA TAATACGACTCACTATAGGGCTACCGCGATTCTCGCCCA TAATACGACTCACTATAGGGCACGCGATTCTCGCCCA TAATACGACTCACTATAGGGCACGCGATTCCGCCCA TAATACGACTCACTATAGGGGCACGCGGTTCTCGCCCA TAATACGACTCACTATAGGGCACGCGGTTCTCGCCCA TAATACGACTCACTATAGGGCACGCGATTCCGCCCA TAATACGACTCACTATAGGGCACGCGATTCCGCCAACACC
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL006363           AAEL006355           AAEL0008329           AAEL008266           AAEL01452           AAEL01452           AAEL01456           AAArestin-a           AAArestin-b           AaJNK           AaF283           AaFU           AaFX           AaFX           AaFX           AAFX           AAFX           AAArestin-b           AaFX           AaFX           AaFX           AaFX           AaFX           AaFX           AaFX           AaFX           AaArestin-b           AaFX           AaFX <td>Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCCACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAGAATGAC           TAATACGACTCACTATAGGGTGCGCAGGCCGTAGCGGCCATTAGTGC           TAATACGACTCACTATAGGGGTGCGCCGGCCATAGGTGC           TAATACGACTCACTATAGGGGCCCGGGCCATGAAGATGAC           TAATACGACTCACTATAGGGGCCCCGGGCCATGAAGATCA           TAATACGACTCACTATAGGGGCCCCCGGCCAAGAACAA           TAATACGACTCACTATAGGGGTCCCCAGCGCCCACCAACAACAA           TAATACGACTCACTATAGGGGTCCCTCCGGCAAGAACC           TAATACGACTCACTATAGGGGCCCCCCATCATTCAACC           TAATACGACTCACTATAGGGGTCCCTCCGAGCAGACACATCAACCAAC</td> <td>Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGAGG TAATACGACTCACTATAGGGCATCAGGCCAAGCCAGACACCAG TAATACGACTCACTATAGGGCACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCGCGCATAGTCGGGCAACAT TAATACGACTCACTATAGGGCGCGCACGCCGCACGCAGGCACAT TAATACGACTCACTATAGGGTGCGCCGCACGCAGCGCAAGCTCG TAATACGACTCACTATAGGGTCGCGCCACGGCAAGCACAG TAATACGACTCACTATAGGGTCGCGGCAACGCCACGCAGGCACAG TAATACGACTCACTATAGGGTCGCGCACGGCAAGCACAG TAATACGACTCACTATAGGGTCGCGGTAAAGCCG TAATACGACTCACTATAGGGTCGCGCACGGCATGGCC TAATACGACTCACTATAGGGTCGCGCACGGCATGGCC TAATACGACTCACTATAGGGCTCGCACTGGCTTCCCTCAA TAATACGACTCACTATAGGGCCCGCACGGCATGACC TAATACGACTCACTATAGGGCCCGCACGGCATCACCT TAATACGACTCACTATAGGGCGCGCTGCGTCACCCTTT TAATACGACTCACTATAGGGACGCGCCAGGGCTCCCTCCA TAATACGACTCACTATAGGGACGCGCCAGGCCTCCTCCGA TAATACGACTCACTATAGGGACCGCAAGGCCCCTCCACGA TAATACGACTCACTATAGGGACCCGTAGAATTGATAGA TAATACGACTCACTATAGGGACCGCAAGGCCCTACACTC TAATACGACTCACTATAGGGACCGCAAGGCCTACACACT TAATACGACTCACTATAGGGACCGCATGCTAACACAC TAATACGACTCACTATAGGGCACCGTGAAGTTGATAACGGGTG TAATACGACTCACTATAGGGCACGCGATTGCTAACACTC TAATACGACTCACTATAGGGCACGCGATTGCTAACACTC TAATACGACTCACTATAGGGCACACGTGTTTAGCGCCA TAATACGACTCACTATAGGGCACGCGATTGCTAACACTC TAATACGACTCACTATAGGGCACGCGATTGCCAACACTC TAATACGACTCACTATAGGGCACGCGGTGCTTGCCATATACG TAATACGACTCACTATAGGGCACGCGGTGCTTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGCGGTGGTGCCATATACCGCCA TAATACGACTCACTATAGGGCCGCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGCGGTGGTGCCATATACCGCCA TAATACGACTCACTATAGGGCCGCGGTGCTCCCCGGGACAGGTGCCACGCA TAATACGACTCACTATAGGGCCCGCGGTGCTCCCCGGACAGGTACAG TAATACGACTCACTATAGGGCCCGCGGTGCTTCACGGCACGGTGGTACAG TAATACGACTCACTATAGGGCCCCGCGGTGCTTCACGGCACGTGGTACAG</td>	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCCACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAGAATGAC           TAATACGACTCACTATAGGGTGCGCAGGCCGTAGCGGCCATTAGTGC           TAATACGACTCACTATAGGGGTGCGCCGGCCATAGGTGC           TAATACGACTCACTATAGGGGCCCGGGCCATGAAGATGAC           TAATACGACTCACTATAGGGGCCCCGGGCCATGAAGATCA           TAATACGACTCACTATAGGGGCCCCCGGCCAAGAACAA           TAATACGACTCACTATAGGGGTCCCCAGCGCCCACCAACAACAA           TAATACGACTCACTATAGGGGTCCCTCCGGCAAGAACC           TAATACGACTCACTATAGGGGCCCCCCATCATTCAACC           TAATACGACTCACTATAGGGGTCCCTCCGAGCAGACACATCAACCAAC	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGAGG TAATACGACTCACTATAGGGCATCAGGCCAAGCCAGACACCAG TAATACGACTCACTATAGGGCACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGCGCGCATAGTCGGGCAACAT TAATACGACTCACTATAGGGCGCGCACGCCGCACGCAGGCACAT TAATACGACTCACTATAGGGTGCGCCGCACGCAGCGCAAGCTCG TAATACGACTCACTATAGGGTCGCGCCACGGCAAGCACAG TAATACGACTCACTATAGGGTCGCGGCAACGCCACGCAGGCACAG TAATACGACTCACTATAGGGTCGCGCACGGCAAGCACAG TAATACGACTCACTATAGGGTCGCGGTAAAGCCG TAATACGACTCACTATAGGGTCGCGCACGGCATGGCC TAATACGACTCACTATAGGGTCGCGCACGGCATGGCC TAATACGACTCACTATAGGGCTCGCACTGGCTTCCCTCAA TAATACGACTCACTATAGGGCCCGCACGGCATGACC TAATACGACTCACTATAGGGCCCGCACGGCATCACCT TAATACGACTCACTATAGGGCGCGCTGCGTCACCCTTT TAATACGACTCACTATAGGGACGCGCCAGGGCTCCCTCCA TAATACGACTCACTATAGGGACGCGCCAGGCCTCCTCCGA TAATACGACTCACTATAGGGACCGCAAGGCCCCTCCACGA TAATACGACTCACTATAGGGACCCGTAGAATTGATAGA TAATACGACTCACTATAGGGACCGCAAGGCCCTACACTC TAATACGACTCACTATAGGGACCGCAAGGCCTACACACT TAATACGACTCACTATAGGGACCGCATGCTAACACAC TAATACGACTCACTATAGGGCACCGTGAAGTTGATAACGGGTG TAATACGACTCACTATAGGGCACGCGATTGCTAACACTC TAATACGACTCACTATAGGGCACGCGATTGCTAACACTC TAATACGACTCACTATAGGGCACACGTGTTTAGCGCCA TAATACGACTCACTATAGGGCACGCGATTGCTAACACTC TAATACGACTCACTATAGGGCACGCGATTGCCAACACTC TAATACGACTCACTATAGGGCACGCGGTGCTTGCCATATACG TAATACGACTCACTATAGGGCACGCGGTGCTTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGCGGTGGTGCCATATACCGCCA TAATACGACTCACTATAGGGCCGCGGTGGTGCCATATACC TAATACGACTCACTATAGGGCCGCGGTGGTGCCATATACCGCCA TAATACGACTCACTATAGGGCCGCGGTGCTCCCCGGGACAGGTGCCACGCA TAATACGACTCACTATAGGGCCCGCGGTGCTCCCCGGACAGGTACAG TAATACGACTCACTATAGGGCCCGCGGTGCTTCACGGCACGGTGGTACAG TAATACGACTCACTATAGGGCCCCGCGGTGCTTCACGGCACGTGGTACAG
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL005325           AAEL000355           AAEL000364           AAEL000355           AAEL0008069           AAEL0009266           AAEL014356           AAEL014356           AAEL014356           AAEL014356           AAEL014356           AAEL014356           AAEL014356           AAArestin-b           AaArrestin-b           AaJNK           AaF38           AaF13K           AaMvd88           AaImd           AaDome           DmArrestin-1           DmArrestin-2           AaNox	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGCCACGGGCCCTCACAAACAG           TAATACGACTCACTATAGGGCTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGAGCAGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGCAGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGCCATAAGTGC           TAATACGACTCACTATAGGGTGCGCCTTCATTTCATT           TAATACGACTCACTATAGGGCGCGCGCGTTCATTTCCC           TAATACGACTCACTATAGGGGCGGCCCGGCCAGAGAGGGTA           TAATACGACTCACTATAGGGGTGGGCCCCCGGGCATAGAGAGGTA           TAATACGACTCACTATAGGGGTGGGCCCCCGGGCATAGAAGC           TAATACGACTCACTATAGGGGTGGCCCCCGGGCATAGAAGC           TAATACGACTCACTATAGGGCTGGGCCTCGGGCATAGAAGC           TAATACGACTCACTATAGGGCCTGTGGCGTCGGGCATAGAAGC           TAATACGACTCACTATAGGGCCTGTGGCGTCGGGCATAGAAGC           TAATACGACTCACTATAGGGCCTGTGGCGTCCGGGCATAGAAGC           TAATACGACTCACTATAGGGCCTGTGGGCTTCGCGGCACAGAAGC           TAATACGACTCACTATAGGGACTGTTCTTCCAACGAACACACCGCGG           TAATACGACTCACTATAGGGACGTCATCAACAACATCACCAATGTG           TAATACGACTCACTATAGGGCCATCTCACAACAACATCACCACAATGT           TAATACGACTCACTATAGGGACGCATGGTGGTTGTTATT           TAATACGACTCACTATAGGGACGCATTCACAACAACATCACCAATGT           TAATACGACTCACTATAGGGACGCTACCATGGGCTGTCAGA           TAATACGACTCACTATAGGGCCACTCCACCACCGAACATT           TAATACGACTCACTATAGGGCCACTCTCCACCACGAGCGTTCCAGA	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCGAGGATGG TAATACGACTCACTATAGGGCATCGCGCGCAAACACCAG TAATACGACTCACTATAGGGTAGCCCCAAGCTAAAACCTAC TAATACGACTCACTATAGGGTGGCGCACAGTCACAAACCTAC TAATACGACTCACTATAGGGTGGCCGCACGGCATAGTCG TAATACGACTCACTATAGGGTGCCCGCATGGCATAGTCG TAATACGACTCACTATAGGGTGCCCGCATGGCATAGTCG TAATACGACTCACTATAGGGTGCCGCACGGCATAGTCG TAATACGACTCACTATAGGGTCCCGCATGGCTCACCAGG TAATACGACTCACTATAGGGCGCGCCGCACGACAGGACAG TAATACGACTCACTATAGGGCTGCCCATGGGCTCCACCA TAATACGACTCACTATAGGGCTGCCCATGGCTTCCCTCAA TAATACGACTCACTATAGGGCCGCCTCGCCTCACCACTT TAATACGACTCACTATAGGGCCGCTTGCCTGAGTGACT TAATACGACTCACTATAGGGCCGCTTCGCTGAGTTGTTCGT TAATACGACTCACTATAGGGCCGCTTGCCTGCGCACGGCT TAATACGACTCACTATAGGGCCGCTTGCCTGCGCACGGT TAATACGACTCACTATAGGGACGCCGTGCACCACGATT TAATACGACTCACTATAGGGACCCGGCATGCTACATC TAATACGACTCACTATAGGGCCGCCATGCATACGTC TAATACGACTCACTATAGGGCCGCGTTGCATGAACGAT TAATACGACTCACTATAGGGACGCCGTGGCACGGCGTTCCTCGA TAATACGACTCACTATAGGGCCGCGTTGCTGACATC TAATACGACTCACTATAGGGTACCGGCGCTTGCTAACATC TAATACGACTCACTATAGGGTACCGCGATTGTAACTC TAATACGACTCACTATAGGGGTACCCGGTAGCATCC TAATACGACTCACTATAGGGTACGCCGTTGCTACATC TAATACGACTCACTATAGGGTACGCCGGTTCTCCGCGA TAATACGACTCACTATAGGGTACCCGGTAGCATCC TAATACGACTCACTATAGGGTACCCGGTAGCTTCC TAATACGACTCACTATAGGGTACCCGGTAGCTTCCTGCGA TAATACGACTCACTATAGGGTACCCGGTAGCTTCCGCGA TAATACGACTCACTATAGGGTACCCGGTAGCATCGACTTC TAATACGACTCACTATAGGGTACCCGGTAGCTCCGCGA TAATACGACTCACTATAGGGTACCCGGTAGCTCCGGCA TAATACGACTCACTATAGGGTACCCGGTAGCTCCGGACTTCCGGACACGCA TAATACGACTCACTATAGGGTACCCGGTAGCTCCGCATACATC TAATACGACTCACTATAGGGTACCCGGTAGCTCCGGACGTTCCGGCA TAATACGACTCACTATAGGGTACCCGGTAGCTCCGGACTTCGGACACGGTCCACTATAACC
The primers for double-strand RNA synthesis GFP AAEL004725 AAEL005432 (AaMesh) AAEL005432 (AaMesh) AAEL003555 AAEL003265 AAEL003266 AAEL003266 AAEL014356 AAEL014356 AAEL014356 AAArestin-a AaArestin-b AaJNK AaERK AaP38 AaP13K AaP38 AaP13K AaB738 AaP13K AaB738 AaP13K AaB738 AaP13K AaB738 AaP13K AaB738 AaP13K AaB738 AaP13K AaB738 AaP13K AaB738 AaP13K AaB738 AaP13K AaB738 AaP138 AAP138 AA	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAAATGAC           TAATACGACTCACTATAGGGTGCGCCTAGCCGGCATAAGTGC           TAATACGACTCACTATAGGGCGCGCGCGTTCATTTCAT           TAATACGACTCACTATAGGGCGCCGCGCGGCAGAGAGGGTA           TAATACGACTCACTATAGGGGCGCCGGCCGTGAGAGATGTA           TAATACGACTCACTATAGGGGCGCCGCGCCGGCAGAGAGAG	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGTGGTGGCATGG TAATACGACTCACTATAGGGCCTCACGACGCCAAGCACAG TAATACGACTCACTATAGGGCGCGCATAGTCGGGCCAAACCTAC TAATACGACTCACTATAGGGCGGCGCATAGTCGGGCCAACAT TAATACGACTCACTATAGGGTGCCTCCGCATAGGCATAGTCG TAATACGACTCACTATAGGGTGCCTCCGATAGCGATAGTCG TAATACGACTCACTATAGGGTGCCTCCGCATAGCATAGTCG TAATACGACTCACTATAGGGTGCCTCCGATAGCATAGTCG TAATACGACTCACTATAGGGTGCCTCCGATAGCATAGTCG TAATACGACTCACTATAGGGCGCCGCACGACAGGACAG TAATACGACTCACTATAGGGTGCCCCACGACAGGACAG TAATACGACTCACTATAGGGTGCCCATCGCTTCCCTCAA TAATACGACTCACTATAGGGATGCCCTGCCTCACCATTT TAATACGACTCACTATAGGGAGGCCCTGCCAACGATTG TAATACGACTCACTATAGGGAGGCCTGCCACGACTGCTTCGT TAATACGACTCACTATAGGGAGGCCCTGGCATCGCTTGCTGGA TAATACGACTCACTATAGGGAGCCCCAGGCTTCCTCGGA TAATACGACTCACTATAGGGAGCCCCAGGCTTCCTCGGA TAATACGACTCACTATAGGGACCCCGAGAGTTGATATCGGGTG TAATACGACTCACTATAGGGGACCCGAGGCTTCTCGGGA TAATACGACTCACTATAGGGGTACCGCATGGCATAGCTTC TAATACGACTCACTATAGGGGTACCGCATGCATATGCGGTG TAATACGACTCACTATAGGGGTACGCGATTGCTAACATC TAATACGACTCACTATAGGGGTACGCGATTGCTAACATC TAATACGACTCACTATAGGGGTACGCGGATTGCTAACATC TAATACGACTCACTATAGGGGTACGCGGTTCTCGGCCA TAATACGACTCACTATAGGGGTACGCGGTTCTCGGCCA TAATACGACTCACTATAGGGGTACGCGATTGCTAACATC TAATACGACTCACTATAGGGGCACGGGTTCTCGGCCA TAATACGACTCACTATAGGGGTACGCGCATGCTTGCGACGATTC TAATACGACTCACTATAGGGGCACGCGTTCCTGGCCA TAATACGACTCACTATAGGGGCACGCGTTCTCGGCCA TAATACGACTCACTATAGGGCCCCTCCACGGTTGCTGACGCC TAATACGACTCACTATAGGGCCCCCCCCTGATGGACGCCCTCCTGGA TAATACGACTCACTATAGGGCCCCTCCCCGCATGATAATC TAATACGACTCACTATAGGGCCCCTCCCCGCATGACACTC TAATACGACTCACTATAGGGCCCCTCCCCCCACGATTCTCGCCCTACAG TAATACGACTCACTATAGGGCCCCCCCCCCCCCCACGATTGCCCCCCCC
The primers for double-strand RNA synthesis           GFP           GFA           AAEL004725           AAEL005432 (AaMesh)           AAEL005432 (AaMesh)           AAEL006355           AAEL000835           AAEL0008369           AAEL008089           AAEL008296           AAEL014526           AAEL014556           AAArestin-a           AAArestin-b           AaJNK           AaERK           AaPi3K           AaMyd88           Aalmot           Aabrestin-2           Aakt           AaDome           DmArrestin-2           AaNox           AaDux           The primers for generate DmMesh-/- Flies	Upper primer           TAATACGACTCACTATAGGGGTGAGCAAGGGCGAGGAG           TAATACGACTCACTATAGGGTTGGCCCACGGGCCTCACAAACAG           TAATACGACTCACTATAGGGTTGGCCCCCACGAGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGACGACAAATGAC           TAATACGACTCACTATAGGGTTGGCCCCGGCCATAGGTGC           TAATACGACTCACTATAGGGTGCGCCGCGCCGGCCATGAGAGC           TAATACGACTCACTATAGGGCGCCCGGCCCGGAAGAGACTAA           TAATACGACTCACTATAGGGGGGCCAAGGATCAACCGAACAA           TAATACGACTCACTATAGGGGTGGGCCCCCAGCGATAGAAGATC           TAATACGACTCACTATAGGGGTGCGCCCCCATCAATCAACCGAACAA           TAATACGACTCACTATAGGGGTCCTCGGGCATAGAAGC           TAATACGACTCACTATAGGGGTCCCTCCGGACAAGACTCATCCA           TAATACGACTCACTATAGGGGCTCCCAGGGACAAGACTCATCCA           TAATACGACTCACTATAGGGACGCCCCACCCAAGGACA           TAATACGACTCACTATAGGGAACATGGTCCCGACCAGGACA           TAATACGACTCACTATAGGGACAGATCATTCCCA           TAATACGACTCACTATAGGGACCAGCACTTCTCCACACGGACA           TAATACGACTCACTATAGGGCCCATTGGTGCTGTTATT           TAATACGACTCACTATAGGGCCCATTCCCACCACGACACATCTG           TAATACGACTCACTATAGGGCCCATCTCCACCACGCACA           TAATACGACTCACTATAGGGACGACGCCTTCTCACCAAGGACA           TAATACGACTCACTATAGGGCACATACTCCACCACGCACG	Lower primer TAATACGACTCACTATAGGGCATGATATAGACGTTGTGGCTGTT TAATACGACTCACTATAGGGCATGATATAGACGTGGGCAGAGATGG TAATACGACTCACTATAGGGCATCCGGCGCAAACCCAG TAATACGACTCACTATAGGGTACGCCCAAGCTCAAAACCTAC TAATACGACTCACTATAGGGGCGCGCACGCGCACACTACGGG TAATACGACTCACTATAGGGGCGCGCCCCCGATAGGCATAGTCG TAATACGACTCACTATAGGGTGCGCCGCACGCAAGGACAG TAATACGACTCACTATAGGGTGCGCCGCACGGCAAGCACAG TAATACGACTCACTATAGGGTGCGCCGCACGGCAAGGACAG TAATACGACTCACTATAGGGTCGCGGTAAAGCATGGC TAATACGACTCACTATAGGGTCGCGGTAAAGCATGGC TAATACGACTCACTATAGGGTCGCCGGCAACGCACAGGACAG TAATACGACTCACTATAGGGTCGCGCACGGCTACACGACGACAG TAATACGACTCACTATAGGGCTCGCACTGGCTTCCCTCAA TAATACGACTCACTATAGGGCCGCGCCGCCTCACCATTT TAATACGACTCACTATAGGGCGGGTCTTCCGTGAGTTGTTGGT TAATACGACTCACTATAGGGAGGGCGCCAGGCAGGATT TAATACGACTCACTATAGGGAGGACGCCAGGCATCTGCTGA TAATACGACTCACTATAGGGACGCCCAGGCATTCCCTCAG TAATACGACTCACTATAGGGACGCCCAGGCATTCCTCCAG TAATACGACTCACTATAGGGACGCCCAGGCATTCCTCAGA TAATACGACTCACTATAGGGACGCCCAGGCATTCCTCAGA TAATACGACTCACTATAGGGACGCCAAGGATTTCCTTAAGA TAATACGACTCACTATAGGGACGCGACGGTTTCCGGCA TAATACGACTCACTATAGGGACGCCAGGCATTCGTAACACTC TAATACGACTCACTATAGGGACGCCGATGTGCTAACACTC TAATACGACTCACTATAGGGTAGCCGATTGCTAACACTC TAATACGACTCACTATAGGGCACGGTTTCCCGCCA TAATACGACTCACTATAGGGCCCGGTGGTGCCATATAATC TAATACGACTCACTATAGGGCCCGGTGGTGCCCATATAATC TAATACGACTCACTATAGGGTCGCCGAGTTTCCGCCA TAATACGACTCACTATAGGGTCCCCGGCAGTTCTCGGCA TAATACGACTCACTATAGGGTCCTCTCACGGACTTCTTCGACGCA TAATACGACTCACTATAGGGTCCTTCTCCGCCA TAATACGACTCACTATAGGGTCCTTCTCCGCCA TAATACGACTCACTATAGGGTCCTTCTCCGCCA TAATACGACTCACTATAGGGTCCTTCTCCGCCA TAATACGACTCACTATAGGGTCCTTCTCCCCGTGATGGACACGG TAATACGACTCACTATAGGGTCCTTCTCCCCGTGATGACAG TAATACGACTCACTATAGGGTCCCCGGTGCTTCACGGCACTCTTTGGA TAATACGACTCACTATAGGGTCCCCCGGTCACTTTCGCCTTCTT TAATACGACTCACTATAGGGGACACGGTCACTTTCGCCCTTCTT TAATACGACTCACTATAGGGGACACGGTCACTTTCGCCACTCTTTGGA TAATACGACTCACTATAGGGGACACGGTCACTTGCCCCAGATC

DmMesh-gRNA-2 DmMesh-gRNA-check TAATACGACTGACTATAGGACGCCGGGTGTTACTCGTTTAGAGCTAGAAATAGC TAATACGACGCACTGACTATAGGACGCCCGGGTGTTACTTCGTTTTAGAGCTAGAAATAGC ATCCAACAATCTCCTCCTCTTACAGC AAATGCCACGAGAAACAAGGG