

## Supporting Information – Atyame et al.

| Gene                       | Putative product               | Primer (5'-3')  | Size (bp) | References |
|----------------------------|--------------------------------|---|-----------|------------|
| <i>Wolbachia</i> gene      |                                |   |           |            |
| <i>ank2</i>                | Ankyrin domain protein         | F-CTTCTTCTGTGAGTGACGT<br>R2-TCCATATCGATCTACTGCGT          | 313-511   | [1]        |
| <i>Culex pipiens</i> genes |                                |   |           |            |
| <i>ace-2</i>               | Acetylcholinesterase 2 (AChE2) | F1457-GAGGAGATGTGGAATCCCAA<br>B1246-TGGAGCCTCCTTTCACGGC   | 700       | [2]        |
| <i>Ester<sup>2</sup></i>   | Carboxylester hydrolase        | Bdir1530-CTCCAGATCAACCCTTC<br>MMI_R-CAGCTTCGGGTCGATCATCAT | 1100      | [3]        |

**Table S1 Genes and primers of *Wolbachia* and *Culex pipiens*.**

References (Table S1)

1- Duron O, Boureux A, Echaubard P, Berthomieu A, Berticat C, et al. (2007) Variability and expression of ankyrin domain genes in *Wolbachia* variants infecting the mosquito *Culex pipiens*. J Bacteriol 189: 4442-4448.

2- Bourguet D, Foncesca D, Vourch G, Dubois MP, Chandre F, et al. (1998) The acetylcholinesterase gene *ace*: a diagnostic marker of the *pipiens* and *quinquefasciatus* forms of the *Culex pipiens* complex. J. Amer. Mosq. Control Assoc. 14: 390-396.

3- Ben Cheikh R, Berticat C, Berthomieu A, Pasteur N, Ben Cheikh H, Weill M. (2008) Characterization of a novel high-activity esterase in Tunisian Populations of the mosquito *Culex pipiens*. Journal of Economic Entomology 101: 484-491.

## Figure legends

**Figure S1 Backcrossing procedure.** Mosquito nuclear backgrounds are indicated by colours: black represents *Cx. p. quinquefasciatus* nuclear background (LR and LR-TC lines) and red represents *Cx. p. pipiens* nuclear background (Is line). *Wolbachia* infection types are indicated by w-labelled symbols: black-filled symbols represent the *w*Pip(LR) strain and red-filled symbols the *w*Pip(Is) strain. Note that the LR[*w*Pip(Is)] line carries the LR nuclear background and the *w*Pip(Is) infection and could be used to produce incompatible males for field release; LR-TC is an uninfected mosquito line.

**Figure S2 Genetic patterns of *Culex pipiens* lines and their *Wolbachia* strains.** A, PCR-RFLP of the *Cx. pipiens ace-2* gene digested by *ScaI* enzyme; B, PCR-RFLP of the *Cx. pipiens Ester<sup>2</sup>* gene digested by *AvaII* enzyme; C, PCR products of the *Wolbachia ank2* gene. The LR[*w*Pip(Is)] line carries the LR nuclear background and the *w*Pip(Is) infection; LR-TC is an uninfected mosquito line. M, molecular weight markers; kb, kilo bases.

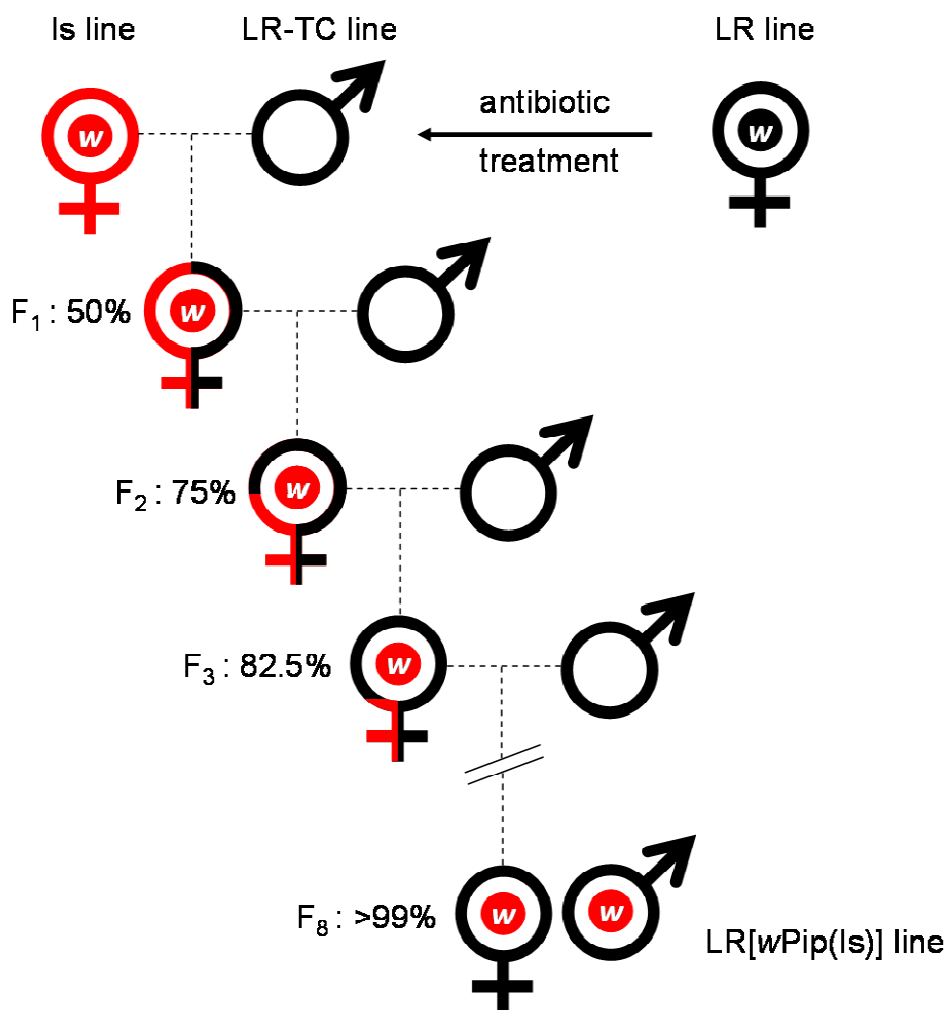


Figure S1

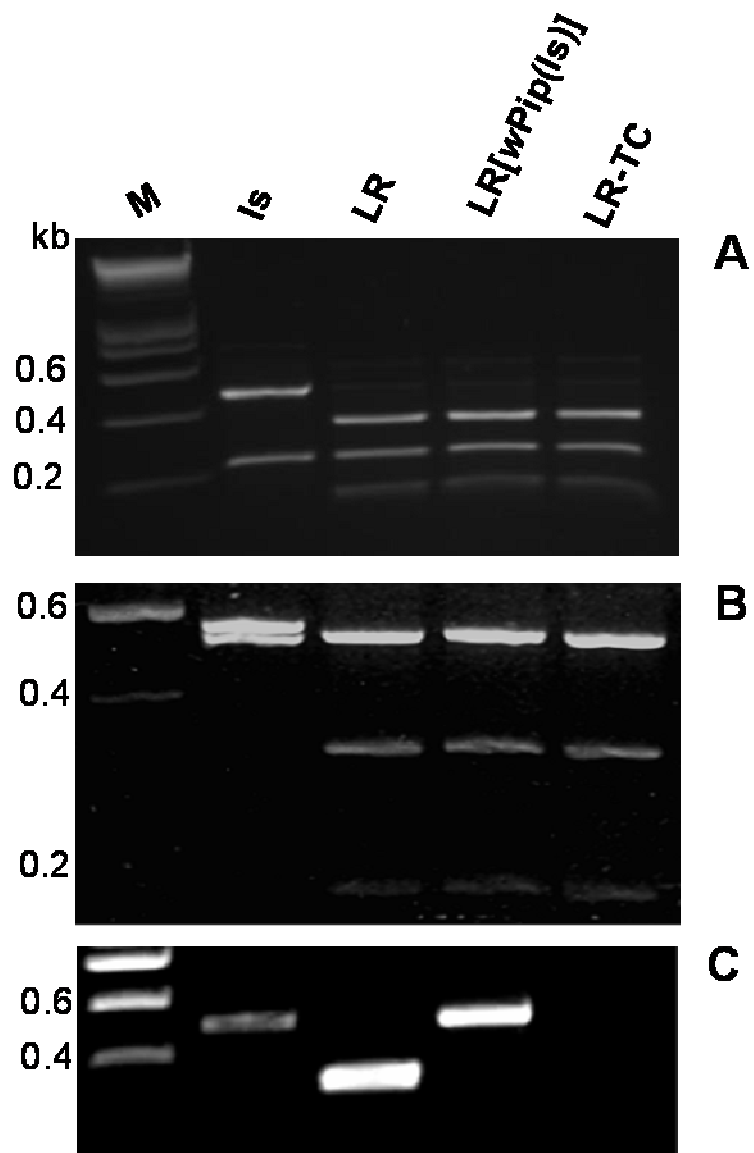


Figure S2