S2 Fig. Transfluthrin resistance of KDR:ROCK mosquitoes and lack of toxicity of the 1S-cis isomer against transfluthrin susceptible Rockefeller mosquitoes.

(A) Concentration-dependent knockdown by transfluthrin vapor in Rockefeller and KDR:ROCK lines; values of parameters showed in the insets from the probit analysis; the solid line represents the curve estimate while the dashed lines represent both the lower and upper 95% confidence intervals; each circle represents the observed knockdown (mean ± SEM, from n = 5 replicates of 20 insects each). (B) Sensitivity of AaNa\textsubscript{v}1-1 and mutant channels expressed in Xenopus oocytes to transfluthrin; The percentage of modified channels was estimated from two electrode voltage clamp tail current recordings as described in Fig 4B, with the equation: \( M = \frac{I_{\text{tail}} / (E_h - E_{Na})}{I_{Na} / (E_t - E_{Na})} \times 100 \); where \( I_{\text{tail}} \) is the maximal tail current amplitude, \( E_h \) is the potential to which the membrane is repolarized, \( E_{Na} \) is the reversal potential for sodium currents determined from the current-voltage curve, \( I_{Na} \) is the amplitude of the peak current during depolarization before transfluthrin exposure, and \( E_t \) is the potential of the step depolarization. Larger percentage of modified channels indicate a more sensitive channels as a smaller percentage indicates a less sensitive channel. Mann-Whitney Rank Sum test, \( U = 0, P = \)
0.002, **P < 0.01, n = 5 oocytes for AaNa\textsubscript{v}1-1, and n = 8 oocytes for mutant channels. (C) No knockdown effect of 1S-cis isomer on Rockefeller mosquitoes at 5 ppm which is the KC\textsubscript{99} of transfluthrin for Rockefeller mosquitoes from panel A; n = 3 groups of 20 mosquitoes each.