Accepted Manuscript

CRISPR/Cas9 mediated G4946E substitution in the ryanodine receptor of *Spodoptera exigua* confers high levels of resistance to diamide insecticides

Yayun Zuo, Hui Wang, Yanjun Xu, Jianlei Huang, Shuwen Wu, Yidong Wu, Yihua Yang

PII: S0965-1748(17)30137-6

DOI: 10.1016/j.ibmb.2017.09.005

Reference: IB 2991

To appear in: *Insect Biochemistry and Molecular Biology*

Received Date: 5 August 2017

Revised Date: 6 September 2017

Accepted Date: 10 September 2017

Please cite this article as: Zuo, Y., Wang, H., Xu, Y., Huang, J., Wu, S., Wu, Y., Yang, Y., CRISPR/Cas9 mediated G4946E substitution in the ryanodine receptor of *Spodoptera exigua* confers high levels of resistance to diamide insecticides, *Insect Biochemistry and Molecular Biology* (2017), doi: 10.1016/j.ibmb.2017.09.005.

Knockin of the ryanodine receptor mutation RyR^{G4946E} confers high levels of resistance to diamides in *Spodoptera exigua*