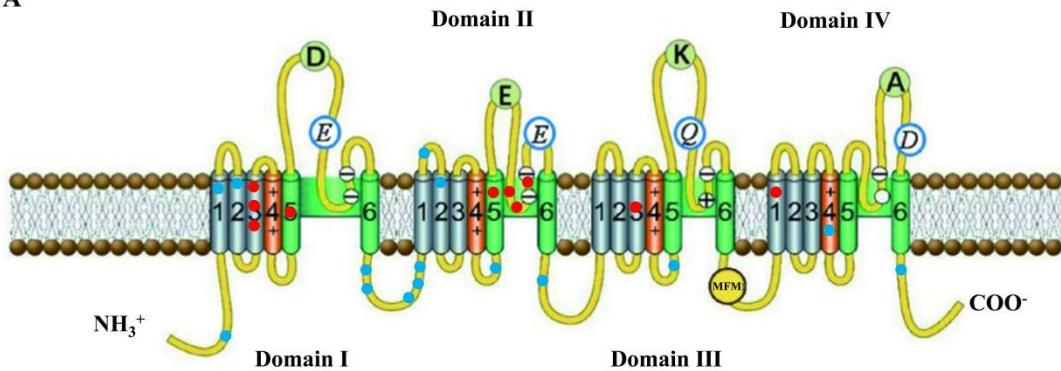


A**B***Megalurothrips usitatus* VGSC

Domain I
AVKVMARGFILQPFTYL RDAWNWLDFVVI ALAYV TMGID.. GLQIYMGVLTKCII
AVKVMARGFILQPFTYL RDAWNWLDFIVIVL ALAYV TMGID.. GLQIYRGVLTKCII

Domain II
MGMQCLFGKYYDNVDKFP GGEMPRWNFTD FMHSFMIVFRVLCGEWIESMWDCMLV
MCMQCLFGKYYDNVDKFP GGEMPRWNFIN FMHSFMIVFRVLCGEWIESMWDCILV

Domain III
FFIEMLIKWLALGFRKYFTNAWCWLDFIVMVS LINFVASL VAGGGI QAFKTMRT
FFIEMLIKWLALGFRKYFTNAWCWLDFIVMVS LINFVASL VAGGGI QAFKTMRT

Domain IV
GSKKPMKAIPRPKWKPQAI VFEIVTNK K FDMI IMLFIGFNMLTMTLDHYQQSETF

Thrips palmi VGSC

Domain I
KS^KKEVN.. TTILTNC^ILIMIMPSSPKVEST^TE^DVIFTGIYT^TFESAVKV MARGFILQP
KT^KKEVR.. TTILTNG^ILIMIMPSSPKVEST^TD^EVIFTGIYT^TFESAVKV MARGFILQP

Domain I-II Linker
E^RAQAKE.. SVAKS^PSAFSC.. RSRSS^RASQAT.. KLQDNPFIDSS.. YYFQQTE
EV^VAQAKE.. SVAKS^HSAFSC.. RSRSS^CASQAT.. KLQDNLFIDSS.. YYFQQPE

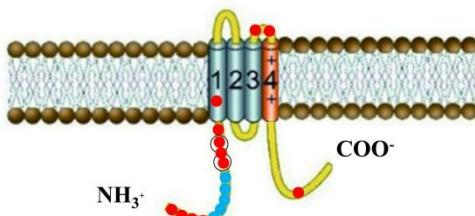
Domain II
D^INPEMDA^VLKGNYFFTATFGIEATLK.. LAKSWPTLNLLISIMGRTM^GALGNL
DM^MNPEMDA^VLKGNYFFTATFGIEATLK.. LAKSWPTLNLLISIMGRTM^RALGNL

Domain III
LS^SAPTADSDTNKIAEAFDRISRFINWIK.. AFKTMRTLRLRPLRAMSR^QGMRV
LY^YAPTADSDTNKIAEAFDRISRFINWIK.. AFKTMRTLRLRPLRAMSR^TGMRV

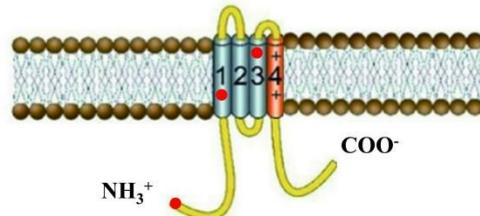
Domain IV
GR^GVLRLVKGAKGIRTLLFAPAMSLPAFL.. KPNKYKIVSMSDIPICKGDLMFCVDI
GW^WVLRLVKGAKGIRTLLFAPAMSLPAFL.. KPNKYKIVSMSDIPICKGDLMFCVDI

C

nAChR α subunit



nAChR β subunit

*Megalurothrips usitatus* nAChR α2 subunit

LGVPAAER.. NITLRRKTLFY.. SPDSFRLPPSR.. AGLDDDSLSDVA.. AQQQYLP
LCVPAAER.. NITLRTKTLFY.. SPDSFQLPPSR.. AGLDDNLSLSDVA.. AQQQYRP

Megalurothrips usitatus nAChR α8 subunit

LILLRVAALALFVI AA VRT.. LIEVNRNQIM.. YLSVEWDVLDAPARRNEEYEPSA
LILRAAALALFVI AA VRT.. LIEVNRNQIM.. YLSVECDVLHAPARRNEEYEPSA

Megalurothrips usitatus nAChR β1 subunit

M^RMPKSWG.. LPAAEGEKVTL.. AKYLLFTFIMNTVSILVTVIINWNFRGPRTH
MR^MPKSWG.. LPAAEADEKVTL.. AKYLLITFIMNTVSILVTVIINWNFRGPRTH

Thrips palmi nAChR α1 subunit

ETLHVPSEH^IWLPD^IIVLYN^SADGNYEV^TITKAIL^IH^TG^EVVWKPPAIYKSFCEI
ETLHVPSEH^IWLPD^IIVLYN^SADGNYEV^TITKAIL^IH^MG^EVVWKPPAIYKSFCEI

Fig. S1 Mutation detection of voltage-gated sodium channel and nicotinic acetylcholine receptors in *Megalurothrips usitatus* and *Thrips palmi* (A) Topological map of the VGSC α subunit of *Megalurothrips usitatus* and *Thrips palmi*. **(B)** Mutation for VGSC α subunit genes in *Megalurothrips usitatus* and *Thrips palmi*. **(C)** Topological map of the nAChR α and β subunit of *Megalurothrips usitatus* and *Thrips palmi*. **(D)** Mutation for nAChR α and β subunit genes in *Megalurothrips usitatus* and *Thrips palmi*. Red circles represent *Megalurothrips usitatus* and blue circles represent *Thrips palmi*.