Additional Information

**Table S1:** Target SNPs investigated which have been associated with insecticide resistance in the *Culicidae* family [18]. Genome and amino acid positions are labelled according to the position in *Anopheles gambiae* P4genome.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Gene** | **Chromosome** | **Position** | **SNP** | **Amino Acid change** |
| *vgsc*-DIS6 | AgamP4\_2L | 2391228 | G>C, T | V402L |
| *vgsc*-DIIS6 | AgamP4\_2L | 2422575 | T >C | S970P |
| *vgsc*-DIIS6 | AgamP4\_2L | 2422643 | A>G | I992M |
| *vgsc*-DIIS6 | AgamP4\_2L | 2422651 | T >C | L995S |
| *vgsc*-DIIS6 | AgamP4\_2L | 2422652 | A>T | L995F |
| *vgsc*-DIIS6 | AgamP4\_2L | 2422657 | T>G | V997G |
| *vgsc*-DIIIS6 | AgamP4\_2L | 2429617 | T>C | I1527T |
| *vgsc*-DIIIS6 | AgamP4\_2L | 2429623 | T>G | F1529C |
| *vgsc*-DIIIS6 | AgamP4\_2L | 2429745 | A>T | N1570Y |
| *vgsc-*DIVS5 | AgamP4\_2L | 2430424 | G>T | A1746S |
| *vgsc-*DIVS5 | AgamP4\_2L | 2430460 | G>T | D1758Y |
| *gste2* | AgamP4\_3R | 28598166 | T>C | I114T |
| *gste2* | AgamP4\_3R | 28598062 | C>G | L119V |
| *gste2* | AgamP4\_3R | 28598057 | C>G,A | F120 L |
| *rdl* | AgamP4\_2L | 25429236 | C>G | A296G |
| *rdl* | AgamP4\_2L | 25429235 | G>T | A296S |
| *ace1* | AgamP4\_2R | 3492074 | G>A | G280S |

**Table S2:** Primers for insecticide resistance amplicon sequencing for the *Anopheles gambiae sensu latu complex*, adapted from Campos *et al* (2022) [18]

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Target Gene** | **Amplicon** | **Forward primer** | **Reverse Primer** | **Chromosome** | **Position\*** | **Product Size (bp)\*** |
| *vgsc* | *vgsc-I* | ATTCGTTATTCTTCAGATGAACT | ATTCTCACCCGAAGTGC | AgamP4\_2L | 2390813-2391328 | 517 |
| *vgsc-II* | GTTTTGCTAGCCTAATTGC | TGTCGGTTGAACGGATGCTATT | AgamP4\_2L | 2422417-2422919 | 503 |
| *vgsc-III* | TTCATGGGAAAATTCACCAA | AATTAGTGCTCCAAACACAAAC | AgamP4\_2L | 2429356-2429845 | 490 |
| *vgsc-IV* | CGAGCCATGGAATTTGT | TGATGTGATCCAGTTACAGA | AgamP4\_2L | 2430093-2430593 | 501 |
| *ace1* | *ace1* | CTGGTGGTCAACACGGA | GAACAGTCCCGCATTGC  | AgamP4\_2R | 3491732-3492229 | 498 |
| *gste2* | *gste2* | GCCCGGATGAGATTCAT | GGCTAGCACAAACTTGC | AgamP4\_3R | 28597778 -28598182- | 404 |
| *rdl* | *rdl* | CATTGCAATCATCACCATCA | CCAGCAGACTGGCAAATACC | AgamP4\_2L | 25428861-25429373 | 500 |

\*Position and product size in *An. gambiae P4.*

**Table S3**: Barcodes, BC1 to BC10 were concatenated to the 5’ end of forward primers. BC11 to BC20 were concatenated to the 5’ end of reverse primers.

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Barcode** | **Name** | **Barcode** |
| BC1N | CTATCACG | BC11N | ATGGCTAG |
| BC2N | TCCAGTGT | BC12N | GACTTGGT |
| BC3N | GATCAGTA | BC13N | TCGATCAC |
| BC4N | AGTGTCGG | BC14N | ACACGTCA |
| BC5N | GTAGCGCT | BC15N | CAATGTGC |
| BC6N | CATCTAAC | BC16N | GGGACTAC |
| BC7N | TACAGATC | BC17N | ACGTACTG |
| BC8N | CGTCTTGT | BC18N | TGATTGCC |
| BC9N | TATGATCA | BC19N | AACTCTAC |
| BC10N | GGTAGCTT | BC20N | TGACTCAA |