Table S5. The list and the nucleotide sequences of 22 IRs of *P. akamusi* identified in present study.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Unigene | Gene name | Accession number | ORF(bp) | Complete ORF | Blastx annotation | Score | e\_value | Identity (%) |
| Unigene2499\_All | PaIR1 | MN132970 | 2652 | Yes | gi|170046685|ref|XP\_001850884.1|/0/conserved hypothetical protein [Culex quinquefasciatus] | 942.57 | 0.00e+00 | 52.06 |
| CL1432.Contig2\_All | PaIR2 | MN132971 | 1581 | Yes | gi|170056173|ref|XP\_001863912.1|/2.92459e-80/conserved hypothetical protein [Culex quinquefasciatus] | 305.06 | 2.92e-80 | 44.5 |
| Unigene5430\_All | PaIR3 | MN132972 | 1617 | Yes | gi|1000201333|gb|KXJ73839.1|/7.17804e-169/hypothetical protein RP20\_CCG014911 [Aedes albopictus] | 599.74 | 7.18e-169 | 56.83 |
| Unigene19944\_All | PaIR4 | MN132973 | 1863 | Yes | gi|157106493|ref|XP\_001649349.1|/3.06932e-75/AAEL014690-PA [Aedes aegypti] | 288.50 | 3.07e-75 | 31.38 |
| CL2030.Contig2\_All | PaIR5 | MN132974 | 468 | Yes | gi|668464906|gb|KFB52144.1|/0/AGAP000803-PA-like protein [Anopheles sinensis] | 1308.51 | 0.00e+00 | 69.75 |
| CL2030.Contig3\_All | PaIR6 | MN132975 | 2805 | Yes | gi|568251481|gb|ETN61009.1|/3.89825e-60/glutamate receptor, ionotropic kainate 1, 2, 3 (glur5, glur6, glur7) [Anopheles darlingi] | 234.96 | 3.90e-60 | 74.34 |
| Unigene6589\_All | PaIR7 | MN132976 | 450 | Yes | gi|347968576|ref|XP\_312117.5|/0/AGAP002797-PA [Anopheles gambiae str. PEST] | 1025.39 | 0.00e+00 | 58.58 |
| Unigene9808\_All | PaIR8 | MN132977 | 1464 | Yes | gi|170056615|ref|XP\_001864109.1|/6.80847e-23/ionotropic glutamate receptor [Culex quinquefasciatus] | 110.92 | 6.81e-23 | 54 |
| Unigene6551\_All | PaIR9 | MN132978 | 333 | Yes | gi|668464906|gb|KFB52144.1|/0/AGAP000803-PA-like protein [Anopheles sinensis] | 913.29 | 0.00e+00 | 51.45 |
| CL639.Contig2\_All | PaIR10 | MN132979 | 411 | Yes | gi|939239369|ref|XP\_014262401.1|/1.49839e-151/PREDICTED: glutamate receptor ionotropic, kainate 2 [Cimex lectularius] | 542.35 | 1.50e-151 | 85.13 |
| Unigene13641\_All | PaIR11 | MN132980 | 2622 | Yes | gi|939239369|ref|XP\_014262401.1|/1.11948e-49/PREDICTED: glutamate receptor ionotropic, kainate 2 [Cimex lectularius] | 199.90 | 1.12e-49 | 70.59 |
| Unigene4339\_All | PaIR12 | MN132981 | 267 | No | gi|1000204182|gb|KXJ75762.1|/1.34422e-15/hypothetical protein RP20\_CCG011119 [Aedes albopictus] | 86.66 | 1.34e-15 | 40.74 |
| Unigene10587\_All | PaIR13 | MN132982 | 5910 | Yes | gi|668454898|gb|KFB43279.1|/2.82004e-45/AGAP005527-PA-like protein [Anopheles sinensis] | 185.27 | 2.82e-45 | 73.04 |
| Unigene11312\_All | PaIR14 | MN132983 | 276 | No | gi|568258100|gb|ETN66290.1|/1.20107e-11/hypothetical protein AND\_001947 [Anopheles darlingi] | 73.56 | 1.20e-11 | 38.65 |
| Unigene13498\_All | PaIR15 | MN132984 | 2895 | Yes | gi|939239369|ref|XP\_014262401.1|/2.07964e-40/PREDICTED: glutamate receptor ionotropic, kainate 2 [Cimex lectularius] | 169.09 | 2.08e-40 | 94.25 |
| Unigene13542\_All | PaIR16 | MN132985 | 2865 | Yes | gi|805797811|ref|XP\_012143663.1|/1.88267e-55/PREDICTED: glutamate receptor 1-like [Megachile rotundata] | 221.09 | 1.88e-55 | 65.88 |
| Unigene1105\_All | PaIR17 | MN132986 | 2847 | Yes | gi|668464908|gb|KFB52146.1|/0/AGAP002797-PA-like protein [Anopheles sinensis] | 928.32 | 0.00e+00 | 51.6 |
| Unigene3958\_All | PaIR18 | MN132987 | 2817 | Yes | gi|1000196554|gb|KXJ71028.1|/0/hypothetical protein RP20\_CCG021738 [Aedes albopictus] | 1511.89 | 0.00e+00 | 79.66 |
| CL2030.Contig1\_All | PaIR19 | MN132988 | 393 | No | gi|170068371|ref|XP\_001868841.1|/1.94388e-32/glutamate receptor [Culex quinquefasciatus] | 144.82 | 1.94e-32 | 55.41 |
| CL1105.Contig2\_All | PaIR20 | MN132989 | 462 | Yes | gi|668451008|gb|KFB40214.1|/0/glutamate receptor, ionotropic, n-methyl d-aspartate epsilon (nmda epsilon) [Anopheles sinensis] | 1705.26 | 0.00e+00 | 83.81 |
| Unigene13631\_All | PaIR21 | MN132990 | 2751 | Yes | gi|662198318|ref|XP\_008472277.1|/1.05442e-92/PREDICTED: glutamate receptor ionotropic, kainate 2 [Diaphorina citri] | 345.13 | 1.05e-92 | 85.64 |
| Unigene12578\_All | PaIR22 | MN132991 | 318 | Yes | gi|357615043|gb|EHJ69440.1|/4.58235e-24/hypothetical protein KGM\_00270 [Danaus plexippus] | 114.78 | 4.58e-24 | 51.16 |