**Table S1.** Nematode resistance genes from different crop plants used for BLASTN analysis

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Gene** | **Accession No.** | **Sourcea** | **Nematodeb** | **cDNA/**  **genomic sequencec** | **Blast hit score** |
| 1. | *Mi-1.2* | AF039682.1 | *Lycopersicon*  *esculentum* | *M. incognita* | cDNA | No hits found |
| 2. | *Hs1pro-1* | U79733.1 | *Beta procumbens* | *H. schachtii* | cDNA | 48 |
| 3. | *Hero A* | AJ457051.1 | *Lycopersicon esculentum* | *G. pallida*  *G. rostochiensis* | cDNA | 28 |
| 4. | *Mi-1* | AY731232.1 | *Lycopersicon esculentum* | *M. incognita* | Genomic | No hits found |
| 5. | *Gro1-4* | AY196151.1 | *Solanum tuberosum* | *G. rostochiensis*  *pathotype Ro1* | cDNA | 38 |
| 6. | *Rhg1* | EU740428.1 | *Glycine max* | *H. glycines* | cDNA | No hits found |
| 7. | *Rhg4* | AY163905.1 | *Glycine max* | *H. glycines* | cDNA | 33 |
| 8. | *cpT1* | AJ271752.1 | *Vigna unguiculata* | *H. glycines* | Genomic | No hits found |
| 9. | *CeCPI* | AF525880.1 | *Colocasia esculenta* | *M. incognita* | cDNA | 29 |
| 10. | *Psei2* | NM\_001112543.1 | *Zea mays* | *R. similis,*  *Helicotylenchus*  *Multicinctus, and*  *Meloidogyne spp.* | cDNA | 30 |
| 11. | *Oryzacystatin-I* | NC\_029256.1 | *Oryza sativa japonica* | *M. incognita*  *M. javanica*  *M. hapla* | cDNA | 259 |
| 12. | *Oryzacystatin-II* | NC\_029260.1 | *Oryza sativa japonica* | *M. incognita*  *M. javanica*  *M. hapla* | Genomic | 202 |
| 13. | *LECGNA 2* | M55556.1 | *Galanthus nivalis* | *G. pallida,*  *Pratylenchus bolivianus,*  *M. incognita* | cDNA | No hits found |
| 14. | *Cry5B* | EU822809.1 | Synthetic construct | *M. incognita* | cDNA | No hits found |

**Table S2.** Analysis of variance for root-knot nematode parameters among *Oryza* genotypes after nematode infestation

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Source of variation** | **Df** | **Nematode parameters** | | |
| **SPD** | **RF** | **RGI** |
| **Year** | 1 | 1.90 | 2.14 | 31.68 |
| **Genotype** | 127 | 231.99\* | 230.18\* | 166.04\* |
| **Replication** | 2 | 1.63 | 4.20 | 7.00 |
| **Residual** | 637 | 226.68 | 224.95 | 162.56 |
| **LSD (5%)** | | 99.53 | 0.39 | 0.58 |

SPD- Soil population density; RF- Reproduction factor; RGI- Root gall index; LSD- Least significant difference.

**Table S3.** Analysis of variance for morphological traits of selected *Oryza* genotypes under nematode infestation and non-infestation conditions

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source of variation** | **Df** | **Agronomic traits** | | | |
| **PH (cm)** | **RL (cm)** | **FSW (gm)** | **FRW (gm)** |
| **Year** | 1 | 0.04 | 37.15 | 0.03 | 0.01 |
| **Treatment** | 1 | 49.44\* | 15.90\* | 17.21\* | 25.75\* |
| **Genotype** | 8 | 125.97 | 60.71 | 303.87 | 188.96 |
| **Residual** | 97 | 105.73 | 53.88 | 244.82 | 153.74 |
| **LSD (5%)** | | 2.60 | 1.12 | 6.79 | 2.14 |

PH- Plant height; RL- Root length; FSW- Fresh shoot weight; FRW- Fresh root weight; LSD- Least significant difference.

**Table S4.** Nucleotide substitution variation in *Oryzacystatin-I and Oryzacystatin-II* genes between *O. sativa* cv. PR121 and *O. glaberrima* acc. IRGC102206

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene** | **SNP Position** | **SNP** | **Type of SNP** | **Gene** | **SNP**  **Position** | **SNP** | **Type of SNP** |
| ***Oryzacystatin-I*** | 126 | C/G | Transversion | ***Oryzacystatin-II*** | 96 | A/G | Transition |
| 177 | A/G | Transition | 103 | G/A | Transition |
| 274 | G/C | Transversion | 163 | T/C | Transition |
| 524 | C/T | Transition | 169 | G/A | Transition |
| 601 | T/C | Transition | 291 | C/T | Transition |
| 970 | C/T | Transition | 424 | A/G | Transition |
| 980 | T/A | Transversion | 462 | C/A | Transversion |
| 981 | A/T | Transversion | 479 | C/T | Transition |
| 982 | T/A | Transversion | 502 | A/C | Transversion |
| 983 | A/T | Transversion | 541 | A/G | Transition |
| 984 | T/A | Transversion | 551 | C/T | Transition |
| 985 | T/A | Transversion | 565 | G/A | Transition |
| 1048 | T/A | Transversion | 696 | G/A | Transition |
| 1049 | A/T | Transversion | 697 | T/C | Transition |
| 1050 | T/A | Transversion | 698 | C/T | Transition |
| 1051 | A/C | Transversion | 735 | C/A | Transversion |
| 1052 | T/A | Transversion | 765 | T/A | Transversion |
| 1053 | T/G | Transversion | 769 | G/T | Transversion |
| 1054 | A/G | Transition | 773 | G/C | Transversion |
| 1055 | T/G | Transversion | 780 | G/A | Transition |
| 1057 | T/A | Transversion | 1041 | T/A | Transversion |
| 1059 | T/A | Transversion | 1397 | A/G | Transition |
| 1060 | A/G | Transition |  |  |  |
| 1061 | T/A | Transversion |  |  |  |