

**Additional file 1: Details of the distribution of the sequence variations in PvPGIP1 and GmPGIP3 with PvPGIP2 over the conserved and variable portion of the repeat and the nonLRR region**

The table shows the distribution of the varying residues in *PvPGIP1* and *GmPGIP3* with *PvPGIP2* in the LRRs and nonLRR regions. The changes that occur in the LRR region is either L/N/C of the conserved segment (LxxLxLxxNxL) or is x. They are denoted by cL, cN, cC and cX where X is any amino acid. Amino acid in the variable region of the LRR is denoted by v.

| <b><i>Residue No</i></b> | <b><i>Residue type and their position with respect to the LRR pattern (PvPGIP2)</i></b> | <b><i>Residue type and their position with respect to the LRR pattern (PvPGIP1)</i></b> | <b><i>Residue type and their position with respect to the LRR pattern (GmPGIP3)</i></b> |
|--------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 54                       | N (cX)                                                                                  | unchanged                                                                               | D (cX)                                                                                  |
| 59                       | G (cX)                                                                                  | unchanged                                                                               | D (cX)                                                                                  |
| 60                       | L (cN)                                                                                  | H (cN)                                                                                  | unchanged                                                                               |
| 67                       | P (v)                                                                                   | unchanged                                                                               | S (v)                                                                                   |
| 70                       | S (v)                                                                                   | unchanged                                                                               | P (v)                                                                                   |
| 72                       | L(v)                                                                                    | unchanged                                                                               | I (v)                                                                                   |
| 82                       | Y (cX)                                                                                  | unchanged                                                                               | S (cX)                                                                                  |
| 84                       | G (cX)                                                                                  | unchanged                                                                               | S (cX)                                                                                  |
| 85                       | G (insertion)                                                                           | unchanged                                                                               | R (cX)                                                                                  |
| 86                       | I (cX)                                                                                  | unchanged                                                                               | T (cN)                                                                                  |
| 87                       | N (cN)                                                                                  | unchanged                                                                               | P (insertion)                                                                           |
| 88                       | N (cX)                                                                                  | unchanged                                                                               | T (cX)                                                                                  |
| 90                       | V (v)                                                                                   | unchanged                                                                               | I (v)                                                                                   |
| 92                       | P (v)                                                                                   | unchanged                                                                               | Q (v)                                                                                   |
| 95                       | P (v)                                                                                   | unchanged                                                                               | S (v)                                                                                   |
| 104                      | H (cX)                                                                                  | unchanged                                                                               | R (cX)                                                                                  |
| 116                      | A (v)                                                                                   | unchanged                                                                               | P (v)                                                                                   |
| 136                      | A (cX)                                                                                  | unchanged                                                                               | T (cX)                                                                                  |

| <b><i>Residue No</i></b> | <b><i>Residue type and their position with respect to the LRR pattern (PvPGIP2)</i></b> | <b><i>Residue type and their position with respect to the LRR pattern (PvPGIP1)</i></b> | <b><i>Residue type and their position with respect to the LRR pattern (GmPGIP3)</i></b> |
|--------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 140                      | T (v)                                                                                   | unchanged                                                                               | K (v)                                                                                   |
| 143                      | P (v)                                                                                   | unchanged                                                                               | A (v)                                                                                   |
| 145                      | I (v)                                                                                   | unchanged                                                                               | L (v)                                                                                   |
| 152                      | V (cX)                                                                                  | G (cX)                                                                                  | Unchanged                                                                               |
| 160                      | R (cX)                                                                                  | unchanged                                                                               | Q (cX)                                                                                  |
| 178                      | S (cX)                                                                                  | A (cX)                                                                                  | Unchanged                                                                               |
| 192                      | P (v)                                                                                   | unchanged                                                                               | A (v)                                                                                   |
| 219                      | S (v)                                                                                   | unchanged                                                                               | T (v)                                                                                   |
| 220                      | D (non-LRR)                                                                             | unchanged                                                                               | E (non-LRR)                                                                             |
| 224                      | Q (non-LRR)                                                                             | K (non-LRR)                                                                             | Unchanged                                                                               |
| 227                      | H (non-LRR)                                                                             | unchanged                                                                               | L (non-LRR)                                                                             |
| 232                      | S (non-LRR)                                                                             | unchanged                                                                               | M (non-LRR)                                                                             |
| 266                      | Q (v)                                                                                   | unchanged                                                                               | A (v)                                                                                   |
| 271                      | H (cX)                                                                                  | Q (cX)                                                                                  | unchanged                                                                               |
| 273                      | L (cL)                                                                                  | unchanged                                                                               | F (cL)                                                                                  |
| 279                      | N (cX)                                                                                  | unchanged                                                                               | D (cX)                                                                                  |
| 290                      | L (v)                                                                                   | unchanged                                                                               | M (v)                                                                                   |
| 291                      | Q (non-LRR)                                                                             | K (non-LRR)                                                                             | Unchanged                                                                               |
| 297                      | A (non-LRR)                                                                             | S (non-LRR)                                                                             | S (non-LRR)                                                                             |
| 311                      | A (non-LRR)                                                                             | S (non-LRR)                                                                             | P (non-LRR)                                                                             |