

Supplemental Table 1. Application of primers and sequences

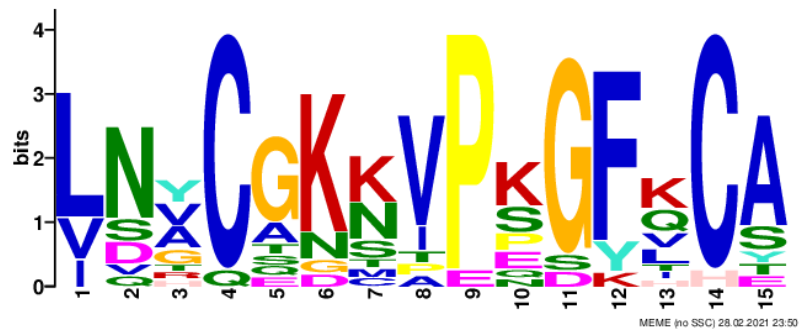
| Primer Name | Purpose/Vector | Sequence (5'-3') |
|---------------|---------------------|--|
| <i>MdPRP1</i> | Clone/pMD19T-simple | F: ATGGACTTTAGGTGTTTC R: TTAAGCACAGACAAAGC |
| <i>MdPRP2</i> | | F: ATGGCTTCTCTAAGGCAGTTG R: TTAGGTGCAATGGAAGCCTT |
| <i>MdPRP3</i> | | F: ATGTGCTTCCTAGGGTTTT R: TCAATCAGGAGGAGGACT |
| <i>MdPRP4</i> | | F: ATGAATTCCAAAACATCTTC R: TTATGCACATTTGAAGCCCT |
| <i>MdPRP5</i> | | F: ATGGCATCCAAAACGAC R: TTAGGCACACTGGAAACC |
| <i>MdPRP6</i> | | F: ATGCCTTCTACCAAGCAGCTCTC R: TCATTACATTTGAAGCCAGGAGG |
| <i>MdPRP7</i> | | F: ATGGATTCCAAAAGTTCTTC R: TTATGCACATTTGAAGCC |
| <i>MdPRP8</i> | | F: ATGGCATCCAAAACAACCTC R: TTAGGCACATTGGAAACC |
| <i>MdPRP9</i> | | F: ATGGCGGAATCCAGCAA R: CTAGAGAGAGCAAGTGTAAACC |
| <i>MdPRP1</i> | PGWB405/415 | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGGACTTTAGGTGTTTC R: GGGGACCACTTTGTACAAGAAAGCTGGGTTAGCACAGACAAAGC |
| <i>MdPRP2</i> | | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGGCTTCTCTAAGGCAG R: GGGGACCACTTTGTACAAGAAAGCTGGGTTGGTCAATGGAAGCCTT |
| <i>MdPRP3</i> | | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGTGCTTCCTAGGGTTTT R: GGGGACCACTTTGTACAAGAAAGCTGGGTTCATCAGGAGGAGGACT |
| <i>MdPRP4</i> | | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGAATTCCAAAACATCTT R: GGGGACCACTTTGTACAAGAAAGCTGGGTTGCACATTTGAAGCCCT |
| <i>MdPRP5</i> | | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGGCATCCAAAACGAC R: GGGGACCACTTTGTACAAGAAAGCTGGGTTGGCACACTGGAAACC |
| <i>MdPRP6</i> | | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGCCTTCTACCAAGCAG R: GGGGACCACTTTGTACAAGAAAGCTGGGTTTTCACATTTGAAGCCAGGA |
| <i>MdPRP7</i> | | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGGATTCCAAAAGTTCTT R: GGGGACCACTTTGTACAAGAAAGCTGGGTTTGCACATTTGAAGCC |
| <i>MdPRP8</i> | | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGGCATCCAAAACAAC R: GGGGACCACTTTGTACAAGAAAGCTGGGTTGGCACATTGGAAACC |
| <i>MdPRP9</i> | | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGGCGGAATCCAGCAA R: GGGGACCACTTTGTACAAGAAAGCTGGGTTGAGAGAGCAAGTGTAAACC |
| <i>MdHB-7</i> | PGWB455 | F: GGGGACAAGTTTGTACAAAAAAGCAGGCTTCATGCTCGATAAAATCGAAT R: GGGGACCACTTTGTACAAGAAAGCTGGGTTGAGACCAGAAGTCCCACC |
| 35S | | GCTCCTACAAATGCCATCA |

| | | |
|------------------|----------------|-----------------------------|
| <i>MdPRP1</i> | qRT-PCR | F: CCTTCCCCGCTCCCTCTATTC |
| | | R: CCCTAACCAACTCCCACAAACACC |
| <i>MdPRP2</i> | | F: GTAGCCTCGTTGGTGGACTTGC |
| | | R: GGAAGCCTTTCGGGATAGACTTG |
| <i>MdPRP3</i> | | F: GCCAAAGCACAAAGCCTGTAAACC |
| | | R: TTACGATGGGAGGACTGTGACTG |
| <i>MdPRP4</i> | | F: CCCACCAGATCACCCCTTGTT |
| | | R: CTCGGGGACATTCTTCGCAC |
| <i>MdPRP5</i> | | F: GCCCTTGTCAGTTCTTGTGG |
| | | R: AGCAAGGTTCTACGGGAGGT |
| <i>MdPRP6</i> | | F: CGCTAGGGCTCAACATGGAA |
| | | R: TTTGAAGCCAGGAGGGACTG |
| <i>MdPRP7</i> | | F: CACCCTTGTTGTGCTTTGCT |
| | | R: ATTTGAAGCCCGAAGGGACAT |
| <i>MdPRP8</i> | | F: CAAAGCCAAATCCGACGCCA |
| | | R: CAGCGAGCCCTTGATGAGA |
| <i>MdPRP9</i> | | F: GCAAGCCAAAGCACAAAGCCTATG |
| | | R: GTGGTTTGACAATGGGAGGGACTG |
| <i>MDH</i> | | F: ATTCAAGTATGCCTGGGTGC |
| | | R: CAGTCAGCCTGTGATGTCC |
| <i>Ubiquitin</i> | | F: GGTGTTTCCAGTGGCGGACG |
| | | R: TCCTCCCCTCAGCTACGGGGTAT |

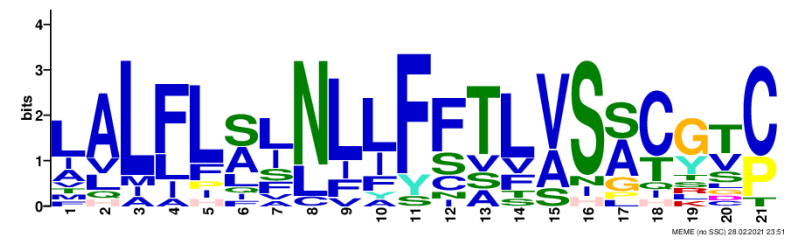
Supplemental Table 2. Conserved motifs in the MdPRP proteins

| Motif | Width | E-value | Logo |
|-------|-------|-----------|------|
| 1 | 35 | 16.7e-216 | |
| 2 | 21 | 2.9e-098 | |

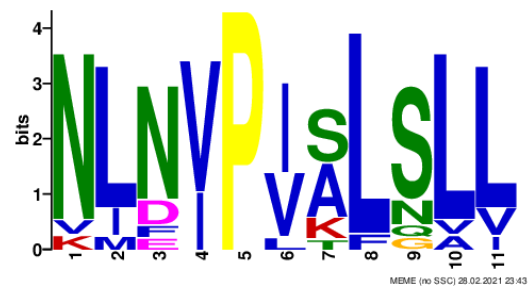
3 15 6.7e-051



4 21 4.4e-045



5 11 4.6e-022



Supplemental Figure. 1. PCR identification and relative expression analysis of *MdPRP* in transgenic *tobacco*

