**Table 1 The domains of AGO, DCL, DRB and RDR proteins in walnut**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Protein name | Domain 1 | Domain 2 | Domain 3 | Domain 4 | Domain 5 | Domain 6 | Domain 7 | Domain 8 | Domain 9 |
| DCL | Ribonuclease\_3 | Ribonucleas\_3\_3 | Dicer\_dimer | PAZ | Helicase\_C | dsrm | DND1\_DSRM | ResIII | DEAD |
| JrDCL1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| JrDCL2a | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| JrDCL2b | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| JrDCL3 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| JrDCL4 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| AGO | Piwi | PAZ | ArgoN | ArgoL1 | ArgoL2 | ArgoMid | Gly-rich\_Ago1 | |  |
| JrAGO10b | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  |  |
| JrAGO10a | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  |  |
| JrAGO10c | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  |  |
| JrAGO1a | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |  |
| JrAGO1b | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |  |
| JrAGO1c | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |  |
| JrAGO2a | 1 | 1 | 1 | 1 | 1 | 0 | 0 |  |  |
| JrAGO2b | 1 | 1 | 1 | 1 | 1 | 0 | 0 |  |  |
| JrAGO4a | 1 | 1 | 1 | 1 | 1 | 0 | 0 |  |  |
| JrAGO4b | 1 | 1 | 1 | 1 | 1 | 0 | 0 |  |  |
| JrAGO4c | 1 | 1 | 1 | 1 | 1 | 0 | 0 |  |  |
| JrAGO5a | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  |  |
| JrAGO5b | 1 | 1 | 1 | 1 | 1 | 1 | 0 |  |  |
| JrAGO6 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |  |  |
| JrAGO7 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |  |  |
| DRB | DSRM | | | | DSRM+ Methyltransf\_11 | | | | |
| 1 | JrDRB6.1 JrDRB6.2 JrDRB7.2 | | | | JrDRB7.1 | | | | |
| 2 | JrDRB1.1 JrDRB1.2 JrDRB2.1 JrDRB2.2 JrDRB3-5.1 JrDRB3-5.2 JrDRB3-5.3 JrDRB3-5.4 JrDRB7.3 JrDRB 7.4 | | | |  |  |  |  |  |
| 3 | JrDRB4A | | | |  |  |  |  |  |
| RDR | RdRp |  |  |  |  |  |  |  |  |
| JrRDR1a JrRDR1b JrRDR1c JrRDR1d JrRDR1e JrRDR1f JrRDR1g JrRDR1h JrRDR1i JrRDR2 JrRDR3 JrRDR6a JrRDR6b | | | | | | | | | |