**جدول 1- مشخصات ژن‌های تکراری MYB در سیب‌زمینی**

**Table 1. characteristics of MYB duplicated genes in potato**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sequence**  | **Sequence**  | **duplication type** | **Kn** | **Ks** | **Kn/Ks** | **Date (million years ago)** | **similarity** |
| PGS011745 | PGS011750 | Sd\* | 0.050 | 0.042 | 1.213 | 1.35 | 94 |
| PGS039029 | PGS067321 | sd | 0.113 | 0.138 | 0.817 | 4.482 | 86 |
| PGS051510 | PGS051513 | sd | 0.058 | 0.029 | 2.037 | 9.265 | 93 |
| PGS051510 | PGS070912 | sd | 0.122 | 0.059 | 2.073 | 1.913 | 89 |
| PGS051513 | PGS070912 | sd | 0.094 | 0.091 | 1.033 | 2.957 | 89 |
| PGS067318 | PGS067322 | sd | 0.089 | 0.170 | 0.525 | 5.519 | 90 |
| PGS067321 | PGS067322 | sd | 0.068 | 0.104 | 0.652 | 3.384 | 91 |

\*: sd: segmental duplication

**جدول2- مشخصات ژن‌های تکراری MYB در ذرت**

**Table 2. characteristics of MYB duplicated genes in corn**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sequences** | **Sequences** | **duplication type** | **Kn** | **Ks** | **Kn/Ks** | **Date (million years ago)** | **similarity** |
| Zm003470\_T001 | Zm402890\_T001 | sd\* | 0.061 | 0.058 | 1.036 | 1.899 | 94 |
| Zm014260\_T001 | Zm396390\_T001 | sd | 0.109 | 0.165 | 0.661 | 5.358 | 85 |
| Zm014260\_T001 | Zm014350\_T001 | sd | 0.006 | 0.014 | 0.404 | 4.53 | 90 |
| Zm014260\_T001 | Zm014420\_T001 | sd | 0.006 | 0.014 | 0.404 | 4.53 | 90 |
| Zm014260\_T001 | Zm014320\_T001 | sd | 0.016 | 0.032 | 0.488 | 1.031 | 96 |
| Zm014260\_T001 | Zm014370\_T001 | sd | 0.016 | 0.032 | 0.488 | 1.031 | 96 |
| Zm014260\_T001 | Zm014390\_T001 | sd | 0.016 | 0.032 | 0.488 | 1.031 | 96 |
| Zm014260\_T001 | Zm014280\_T001 | sd | 0.015 | 0.025 | 0.613 | 8.22 | 97 |
| Zm014260\_T001 | Zm014290\_T001 | sd | 0.016 | 0.032 | 0.488 | 1.031 | 97 |
| Zm014260\_T001 | Zm014430\_T001 | sd | 0.015 | 0.019 | 0.820 | 6.139 | 97 |
| Zm014280\_T001 | Zm014290\_T001 | sd | 0.000 | 0.006 | 0.000 | 2.016 | 99 |
| Zm014280\_T001 | Zm014320\_T001 | sd | 0.000 | 0.006 | 0.000 | 2.016 | 99 |
| Zm014280\_T001 | Zm014370\_T001 | sd | 0.000 | 0.006 | 0.000 | 2.016 | 99 |
| Zm014280\_T001 | Zm014390\_T001 | sd | 0.000 | 0.006 | 0.000 | 2.016 | 99 |
| Zm014280\_T001 | Zm014430\_T001 | sd | 0.000 | 0.006 | 0.000 | 2.017 | 99 |
| Zm014280\_T001 | Zm396390\_T001 | sd | 0.095 | 0.161 | 0.593 | 5.234 | 86 |
| Zm014280\_T001 | Zm014350\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 100 |
| Zm014280\_T001 | Zm014420\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 100 |
| Zm014290\_T001 | Zm396390\_T001 | sd | 0.096 | 0.161 | 0.593 | 5.231 | 85 |
| Zm014290\_T001 | Zm014350\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 93 |
| Zm014290\_T001 | Zm014420\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 93 |
| Zm014290\_T001 | Zm014320\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 99 |
| Zm014290\_T001 | Zm014370\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 99 |
| Zm014290\_T001 | Zm014430\_T001 | sd | 0.000 | 0.012 | 0.000 | 4.048 | 99 |
| Zm014290\_T001 | Zm014390\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 100 |
| Zm014320\_T001 | Zm396390\_T001 | sd | 0.096 | 0.161 | 0.593 | 5.231 | 86 |
| Zm014320\_T001 | Zm014390\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 100 |
| Zm014320\_T001 | Zm014350\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 99 |
| Zm014320\_T001 | Zm014370\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 99 |
| Zm014320\_T001 | Zm014420\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 99 |
| Zm014320\_T001 | Zm014430\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 99 |
| Zm014350\_T001 | Zm396390\_T001 | sd | 0.093 | 0.146 | 0.635 | 4.749 | 86 |
| Zm014350\_T001 | Zm014390\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 93 |
| Zm014350\_T001 | Zm014430\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.233 | 93 |
| Zm014350\_T001 | Zm014420\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 100 |
| Zm014350\_T001 | Zm014370\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 99 |
| Zm014370\_T001 | Zm014390\_T001 | sd | 0.000 | 0.000 | \_ | 0 | 99 |
| Zm014370\_T001 | Zm014420\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 99 |
| Zm014370\_T001 | Zm014430\_T001 | sd | 0.000 | 0.012 | 0.000 | 4.05E+00 | 99 |
| Zm014370\_T001 | Zm396390\_T001 | sd | 0.096 | 0.161 | 0.593 | 5.231 | 86 |
| Zm014390\_T001 | Zm014430\_T001 | sd | 0.000 | 0.012 | 0.000 | 4.048 | 99 |
| Zm014390\_T001 | Zm396390\_T001 | sd | 0.096 | 0.161 | 0.593 | 5.231 | 85 |
| Zm014390\_T001 | Zm014420\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.232 | 93 |
| Zm014420\_T001 | Zm014430\_T001 | sd | 0.000 | 0.007 | 0.000 | 2.234 | 93 |
| Zm014420\_T001 | Zm396390\_T001 | sd | 0.093 | 0.146 | 0.635 | 4.749 | 86 |
| Zm014430\_T001 | Zm396390\_T001 | sd | 0.095 | 0.161 | 0.593 | 5.234 | 85 |
| Zm015120\_T001 | Zm395580\_T001 | sd | 0.083 | 0.128 | 0.645 | 4.16 | 89 |
| Zm028820\_T004 | Zm136720\_T001 | sd | 0.023 | 0.065 | 0.361 | 2.111 | 93 |
| Zm040160\_T001 | Zm202670\_T001 | sd | 0.077 | 0.128 | 0.605 | 4.159 | 87 |
| Zm041540\_T001 | Zm179650\_T001 | sd | 0.087 | 0.155 | 0.560 | 5.031 | 89 |
| Zm045780\_T001 | Zm221780\_T001 | sd | 0.112 | 0.088 | 1.278 | 2.856 | 87 |
| Zm055540\_T001 | Zm216040\_T001 | sd | 0.069 | 0.135 | 0.512 | 4.392 | 88 |
| Zm099570\_T002 | Zm312600\_T001 | sd | 0.035 | 0.107 | 0.330 | 3.49 | 86 |
| Zm103730\_T001 | Zm332030\_T001 | sd | 0.078 | 0.108 | 0.723 | 3.52 | 92 |
| Zm106790\_T001 | Zm324070\_T001 | sd | 0.095 | 0.110 | 0.862 | 3.568 | 88 |
| Zm109860\_T001 | Zm328280\_T003 | sd | 0.070 | 0.082 | 0.858 | 2.649 | 89 |
| Zm130020\_T001 | Zm339810\_T001 | sd | 0.091 | 0.114 | 0.802 | 3.691 | 89 |
| Zm148320\_T001 | Zm367870\_T001 | sd | 0.063 | 0.080 | 0.790 | 2.584 | 92 |
| Zm155610\_T001 | Zm361040\_T001 | sd | 0.050 | 0.062 | 0.806 | 2.002 | 89 |
| Zm185160\_T001 | Zm247570\_T001 | sd | 0.067 | 0.113 | 0.597 | 3.664 | 89 |
| Zm192770\_T001 | Zm257280\_T001 | sd | 0.114 | 0.128 | 0.888 | 4.159 | 85 |
| Zm247370\_T001 | Zm184890\_T001 | sd | \_ |  | \_ | 0 | 86 |
| Zm268770\_T001 | Zm379110\_T001 | sd | 0.097 | 0.148 | 0.659 | 4.795 | 89 |
| Zm273570\_T001 | Zm273580\_T001 | sd | 0.034 | 0.105 | 0.319 | 3.425 | 95 |
| Zm286260\_T001 | Zm286270\_T001 | sd | 0.049 | 0.038 | 1.294 | 1.228 | 94 |
| Zm354510\_T001 | Zm417620\_T002 | sd | 0.016 | 0.110 | 0.142 | 3.588 | 95 |
| Zm405470\_T001 | Zm405510\_T001 | sd | 0.056 | 0.051 | 1.110 | 1.653 | 95 |
| Zm417170\_T001 | Zm417190\_T001 | sd | 0.074 | 0.102 | 0.724 | 3.331 | 90 |
| Zm430000\_T001 | Zm072200\_T002 | sd | \_ | 1.036 | 0.000 | 3.365 | 85 |
| Zm074810\_T001 | Zm429830\_T001 | sd | 0.105 | 0.086 | 1.224 | 2.786 | 88 |
| Zm099830\_T001 | Zm313580\_T002 | sd | 0.071 | 0.068 | 1.036 | 2.224 | 89 |
| Zm146230\_T001 | Zm366540\_T001 | sd | 0.067 | 0.044 | 1.496 | 1.446 | 88 |
| Zm150140\_T001 | Zm369190\_T001 | sd | 0.102 | 0.086 | 1.182 | 2.808 | 86 |
| Zm154560\_T001 | Zm361680\_T001 | sd | 0.089 | 0.200 | 0.444 | 6.51 | 85 |
| Zm278680\_T001 | Zm373660\_T001 | sd | 0.117 | 0.076 | 1.539 | 2.476 | 88 |

\*: sd: segmental duplication

**جدول 3- مشخصات ژن‌های تکراری MYB در جو**

**Table 3. characteristics of MYB duplicated genes in barley**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sequence** | **Sequence** | **duplication type** | **Kn** | **Ks** | **Kn/Ks** | **Date (million years ago)** | **similarity** |
| 1HG0079750.1  | 1HG0079760.1 | Sd\* | 0.105 | 0.206 | 0.512 | 6.69 | 88 |
| 2HG0197300.1  | 2HG0197310.1  | sd | 0.114 | 0.221 | 0.515 | 7.175 | 87 |
| 2HG0197300.1  | 2HG0197320.1 | sd | 0.106 | 0.202 | 0.526 | 6.573 | 86 |
| 2HG0197310.1  | 2HG0197320.1  | sd | 0.091 | 0.217 | 0.421 | 7.055 | 88 |
| 6HG0596330.1  | 6HG0596350.1  | sd | 0.141 | 0.204 | 0.691 | 6.622 | 87 |
| 6HG0596330.1  | 6HG0596410.1  | sd | 0.097 | 0.227 | 0.428 | 7.388 | 87 |
| 6HG0596330.1  | 6HG0596420.1 | sd | 0.119 | 0.163 | 0.731 | 5.287 | 87 |
| 6HG0596350.1  | 6HG0596410.1  | sd | 0.108 | 0.268 | 0.402 | 8.724 | 89 |
| 6HG0596350.1  | 6HG0596420.1  | sd | 0.069 | 0.141 | 0.490 | 4.569 | 91 |
| 7HG0637970.1  | 7HG0638020.1  | sd | 0.081 | 0.200 | 0.405 | 6.511 | 89 |

\*: sd: segmental duplication

جدول 4- **مشخصات ژن‌های تکراری MYB در** آرابیدوپسیس

**Table 4. characteristics of MYB duplicated genes in Arabidopsis**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sequence** | **Sequence** | **duplication type** | **Kn** | **Ks** | **Kn/Ks** | **Date (million years ago)** | **similarity** |
| AT2G25230.1 | AT5G40430.1 | Sd\* | 0.085 | 0.137 | 0.619 | 4.459 | 87 |

\*: sd: segmental duplication