**S3 Table.** Primers

**Primers used for LORE1 insertion mutant genotyping.** Forward primer was used to amplify specifically LORE1 insertion with a specific P2 primer (CCATGGCGGTTCCGTGAATCTTAGG).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **mutant** | **Forward** | | **Reverse** | |
| *Ljkai2a-1* | Sc403 | TATGGTCTCTCACGCTGTTTCCGCC  ATGATCG | Sc283 | TCCACAATAGACACGCCACC |
| *Ljkai2b-3* | Sc285 | CCTCCGTTGACATGACCTCC | Sc17 | TTGAAGACTACCCCTTAAACA  AGGGGTTTGAG |
| *Ljmax2-1* | Sc130 | ATGAAGACTTTACGGGTCTCACACC  ATGAGTAACGCTGCTGAAAC | CG416 | CAGTAGAAGCTCCGGCAAAC |
| *Ljmax2-2* | CG383 | TTGGGGAGGGGTTTAATAGG | CG424 | CGATTTCGTGAGACTTGAAGC |
| *Ljmax2-3* | Sc163 | TCACCTCGCTGGATCTCTC | Sc131 | TTGAAGACTACCACCTCCCAT  GTTGTCATC |
| *Ljmax2-4* | Sc131 | TTGAAGACTACCACCTCCCATGTTG  TCATC | Sc163 | TCACCTCGCTGGATCTCTC |

**Primers used for EMS mutant genotyping.** dCAPS strategy was used to genotype EMS mutants.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **mutant** | **Forward** | | **Reverse** | | **Site** |
| *Ljd14-1* | Sc429 | GCCGGCGGCGGCCGCGAGGT  ACCTG | Sc242 | TTTCGTCTCACCTTGTGTGCCC  CCGCCAGTGC | PstI  (Cut WT) |
| *Ljkai2b-1* | Sc431 | GGTAACTGTGCCATGTCACAG  TATA | Sc285 | CCTCCGTTGACATGACCTCC | AccI  (Cut WT) |

**Primers used for cloning.**

|  |  |  |
| --- | --- | --- |
| **Use** | **Primers** | |
| cloning promoter *AtD14* in LI | Sc224 | TTTCGTCTCAGCGGGTCTACACATTCATCAATCTCGC |
| Sc225 | TTTCGTCTCACAGATTTTTTATGTGTTTGGGTTTGAG |
| cloning promoter *AtKAI2* fragment 1 in LI | Sc232 | TTTCGTCTCAGCGGGGCGATTCAGTGCCATGATT |
| Sc233 | TTTCGTCTCACGATTCGTTCAGATTCTCGCT |
| cloning promoter *AtKAI2* fragment 2 in LI | Sc234 | TTTCGTCTCAATCGACTCGAATTTGATGGATCTTTC |
| Sc235 | TTTCGTCTCACAGACTCTCTAAAGAAGATTCTTC |
| cloning genomic *AtD14* in LI | Sc236 | TTTCGTCTCACACCATGAGTCAACACAACATCTTAGAAG |
| Sc237 | TTTCGTCTCACCTTTCACCGAGGAAGAGCTCGCC |
| cloning genomic *AtKAI2* in LI | Sc238 | TTTCGTCTCACACCATGGGTGTGGTAGAAGAAG |
| Sc239 | TTTCGTCTCACCTTTCACATAGCAATGTCATTACGAATG |
| cloning genomic *LjD14* in LI | Sc240 | TTTCGTCTCACACCATGGCCACTTCAATCCTCGACG |
| Sc241 | TTTCGTCTCACCTTTCAGTGTGCCCCCGCCAGTG |
| cloning genomic *LjKAI2a* and cDNA *Ljkai2a-1* in LI | Sc243 | TTTCGTCTCACACCATGGGGATAGTGGAGGAAGCTCAC |
| Sc244 | TTTCGTCTCACCTTTTACACCCCACTAAATTTTACATCAC |
| cloning genomic *LjKAI2b* in LI | Sc246 | TTTCGTCTCACACCATGGGGATAGTGGAAGAAGCTC |
| Sc247 | TTTCGTCTCACCTTTCAAGCTGCAATATCATGGCAAATG |
| cloning genomic *Ljkai2a-1* in LI | Sc243 | TTTCGTCTCACACCATGGGGATAGTGGAGGAAGCTCAC |
| ST97 | CAAATCCTTCCATAGTAATTTGCGGAAGAAAATCATC |
| ST96 | TTGAAGACTATCTTCAGATATCTCATATAC |
| Sc244 | TTTCGTCTCACCTTTTACACCCCACTAAATTTTACATCAC |
| cloning cDNA *LjKAI2aM160,L190,W157*  fragment 1 in L0 | Sc505 | ATGAAGACTTCCATCGGAGCCCACCCTAAAC |
| ST161 | ATGAAGACTTTACGTCGTCTCACACCATGGG |
| cloning cDNA *LjKAI2aM160,L190,W157*  fragment 2 in L0 | ST163 | ATGAAGACTTATGGCGGTGGGTGGAGACATG |
| ST164 | ATGAAGACTTCGCAAAACGGTTAGAGCAATATC |
| cloning cDNA *LjKAI2aM160,L190,W157*  fragment 3 in L0 | ST165 | ATGAAGACTTTGCGGACCATTTTTCAGAGC |
| Sc498 | ATGAAGACTACAGACGTCTCACCTTTTACACCCCACTAA  ATTTTAC |
| cloning cDNA *LjKAI2b L161,S191,F158*  fragment 1 in L0 | Sc506 | ATGAAGACTTCCAGCGGGGCAAAGCCTGAAC |
| ST169 | ATGAAGACTTTACGTCGTCTCACACCATGGG |
| cloning cDNA *LjKAI2b L161,S191,F158*  fragment 2 in L0 | ST171 | ATGAAGACTTCTGGCTATCGGAGGAGACATG |
| ST172 | ATGAAGACTTTGCGATACGCTTAAGGCTATG |
| cloning cDNA *LjKAI2b L161,S191,F158*  fragment 3 in L0 | ST173 | ATGAAGACTTCGCAGACAATTTTTCAAAGTG |
| Sc503 | ATGAAGACTACAGACGTCTCACCTTTCAAGCTGCAATATC |
| cloning pSUMO *LjKAI2aM160,L190* | Sc604 | CGTGGTGTTTAGGGTTTGCTCCGATGGCGGTG |
| Sc605 | CACCGCCATCGGAGCAAACCCTAAACACCACG |
| cloning pSUMO *LjKAI2b L161,S191* | Sc606 | CATGGTGTTCAGGCTGGGCCCCGCTGGCTATC |
| Sc607 | GATAGCCAGCGGGGCCCAGCCTGAACACCATG |
| cloning pSUMO *LjKAI2aW157* | ST177 | GTGGTGTTTAGGGTGGGCTC |
| ST178 | AGCGGAGCCCACCCTAAAC |
| cloning pSUMO *LjKAI2b F158* | ST179 | ATGGTGTTCAGGCTTTGC |
| ST180 | ATAGCCATCGGGGCAAAG |
| cloning pENTR/D-TOPO *LjD14* | CG389 | CACCATGGCCACTTCAATCCTCGAC |
| CG390 | TCAGTGTGCCCCCGCCAG |
| cloning pENTR/D-TOPO *LjKAI2a* | CG385 | CACCATGGGGATAGTGGAGGAAGC |
| CG386 | TTACACCCCACTAAATTTTACATCA |
| cloning pENTR/D-TOPO *LjKAI2b* | CG387 | CACCATGGGGATATGTGGAAGAAGC |
| CG388 | TCAAGCTGCAATATCATGGC |
| cloning pENTR/D-TOPO *LjMAX2* | CG391 | CACCATGAGTAACGCTGCTGAAAC |
| CG392 | TCAATCACAGATATGACGCC |

**Primers used for gene amplification by RT-qPCR.**

|  |  |  |
| --- | --- | --- |
| **Use** | **Primers** | |
| qPCR *Ubiquitin* | Ubi F | ATGCAGATCTTCGTCAAGACCTTG |
| Ubi R | ACCTCCCCTCAGACGAAG |
| qPCR *LjMAX2* | Sc302 | GAATGTTACACCCTGAGGAAGC |
| Sc303 | TCAGGTTTGGGATCTTGAGG |
| qPCR *LjKAI2a* | Sc282 | CGGTGCAGGAGTTTAGCAGA |
| Sc283 | TCCACAATAGACACGCCACC |
| qPCR *LjKAI2b* | Sc284 | AAGAAAGACCTGGCGGTTCC |
| Sc285 | CCTCCGTTGACATGACCTCC |
| qPCR *LjDLK2* | MG027 | CTCCTTGGTGCTTCTCCCAG |
| MG028 | AAAGCCGAAGCCAGTTTTCA |
| qPCR *LjD14* | D14\_qPCR\_F | ACAGCGTCCGAGAAAACTC |
| D14\_qPCR\_R | AGCAATGGAGGCCAACTAC |