

Supplementary information, Table S1 Oligos Used in This Study

Primer	Sequence (5'-3')
Primers for qRT-PCR	
<i>Actin</i> -F	GCACCACCTGAAAGGAAGTACA
<i>Actin</i> -R	CGATTCCTGGACCTGCCTCATC
<i>SOM410</i> -F	TGGTACTGAGGTTGTTGAT
<i>SOM410</i> -R	GAGCACGAAGAGATGACT
<i>SOM787</i> -F	CCTTCTTGACAGGTGTTG
<i>SOM787</i> -R	CAGCCATCGCAATGAGAG
<i>SOM328</i> -F	GGAGGAGGTTCTTGACTT
<i>SOM328</i> -R	TCTATGGAGGACTTGAGTTC
<i>SOM369-intron1</i> -F	GCTTATTAGACTTGTGACTTGT
<i>SPOM369-intron1</i> -R	GCTGGAATGATAACGAGATC
Primers for RT-PCR	
<i>Tubulin</i> -F	TTTGGAGCCTGGGACTATGGAT
<i>Tubulin</i> -R	ACGGGGGAATGGGATGAGAT
<i>SOM328</i> -F	ATTGGTCAGCCTCTTGCT
<i>SOM328</i> -R	ACTGGGACATTTGCCTTT
Primers for CRISPR/Cas9 genome-editing	
<i>SOM410</i> -sgRNA-F	ATTGCCTTAGCCAAGACTCTACG
<i>SOM410</i> -sgRNA-R	AAACCGTAGAGTCTTGGCTAAGG
Primers for complementation test	
<i>SOM410</i> -EcoRI-F	AAAGAATTCTTACTGCCAACTAATAGACATTAG
<i>SOM410</i> -XbaI-R	AAATCTAGAGATTTTTTGGTGATGATTTATA
<i>SOM328</i> -EcoRI-F	AAAGAATTCCCTTCTCGTCGGTCTTTC
<i>SOM328</i> -XbaI-R	AAATCTAGATAAAAATCTCTTTTACTTTTGGCTG
<i>SOM787</i> -BamHI-F	ATTACGAATTCGAGCTCGGTACCCGGGTGTCACCTTACACACCTTTTC
<i>SOM787</i> -SalI-R	GCCAGTGCCAAGCTTGCATGCCTGCAGGTATCAAGTAAAGTGGTGGTCTC
Primers for subcellular location	
<i>SOM410</i> -BamHI-F	AGCTTTTCGCGAGCTCGGTACCCGGGGATCCATGGCAACAGCAACATCAGCTTC
<i>SOM410</i> -SalI-R	CTCGCCCTTGCTCACCATAAGCTTGTGCGACGTTAGCTGCTGCAGCAGCTGGTTTG
<i>SOM328</i> -BamHI-F	AAAGGATCCATGTTTCAGATCTATGCTC
<i>SOM328</i> -SalI-R	AAAGTCGACCTGGTTGGCAAACCTTGAC
<i>SOM787</i> -BamHI-F	AGCTTTTCGCGAGCTCGGTACCCGGGGATCCATGGCGTCTCTCGCTCTCTCCGGCTCCTC
<i>SOM787</i> -SalI-R	CTCGCCCTTGCTCACCATAAGCTTGTGCGACCCACAAGCCAATGAACCTCCACCAGGCAC
Primers for polyclonal antibodies	
<i>SOM410</i> -F	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATGGCAACAGCAACATCAGCTTC
<i>SOM410</i> -R	GGGGACCACTTTGTACAAGAAAGCTGGGTAGTTAGCTGCTGCAGCAGCTGGT
<i>SOM328</i> -F	GGGGACAAGTTTGTACAAAAAAGCAGGCTTAATGTTTCAGATCTATGCTCGTCC
<i>SOM328</i> -R	GGGGACCACTTTGTACAAGAAAGCTGGGTACTGGTTGGCAAACCTTGACTCCC
Primers for T-DNA insertion mutants genotyping	
<i>som787-2</i> -F	GATTTAATTCCAAGCGAAGCC

<i>som787-2-R</i>	ACTCCCACAAGCAACACAGAG
<i>som328-2-F</i>	TAGTAACCCCAGCATGACCAC
<i>som328-2-R</i>	CTATGCTCGTCCGATCTTCTG
<i>DiT2.1-1-F</i>	CTTAATCTGAGGGCTGCTTTG
<i>DiT2.1-1-R</i>	TCAGGCAGATCAACATAACCC
<i>DiT2.1-2-F</i>	TTTGATTCATGATTTGGCTCC
<i>DiT2.1-2-R</i>	TCAGGCAGATCAACATAACCC
<i>DiT2.2-1-F</i>	TACATACCCAGCTGCAGATCC
<i>DiT2.2-1-R</i>	ACCCATCTTCCAGAAAATTGG
<i>DiT2.2-2-F</i>	GTTGTTGAAAGCCAAGCAAAG
<i>DiT2.2-2-R</i>	TTGCCGGTGATTAAATCTTTG
<i>LSD1-F</i>	CTGGGATTTGTAAAGCAGCTG
<i>LSD1-R</i>	TCAAGTTCCATGGAGCAAAAG

Primers for RNAi knockdown

MDH2-siRNA-F	CCCUUGUGGAUGCAAUGAATT
MDH2-siRNA-R	UUCAUUGCAUCCACAAGGGTT
Control-siRNA-F	UUCUCCGAACGUGUCACGUTT
Control-siRNA-R	ACGUGACACGUUCGGAGAATT

Primers for map-based cloning

M1-F	CTCTGTCACTCTTTTCCTCTGG
M1-R	CATGCAATTTGCATCTGAGG
M2-F	CCCCGAGTTGAGGTATT
M2-R	GAAGAAATTCCTAAAGCATTC
M3-F	AGTGCAAAAGAGCTGTATAA
M3-R	ATTTGTGGGATTCTTTCTCA
M4-F	GCACACATTTGTTATGTTAT
M4-R	TAGCCGAACCGCACCTTT
M5-F	GTTCAATTAACCTGCGTGTGT
M5-R	TACGGTCAGATTGAGTGATTC
M6-F	ATGGAGAAGCTTACACTGATC
M6-R	TGGATTTCTTCCTCTCTTCAC
M7-F	AGAAGCTTTGTGTCCAGTAG
M7-R	GAACCTGGTGTAACGTGTTG
M8-F	AAACAAATTCCAATTTACAA
M8-R	CGCCACAAATTTAAGCCT
M9-F	TCCACAACCAAAGAAAGA
M9-R	TTGATGAGTCTGAATGGC
M10-F	CTTAGTCCTCGAATCCAT
M10-R	GAAGCCATTCTAATAACC
M11-F	TAGTCTTGTTGATGGCTTGA
M11-R	TCCCTCGTTAGGTTTCTG
M12-F	AATGGACTTCCCCAAGAAA
M12-R	GTAAATAAGACGGAGAAGAG

M13-F	CCACTTGTTTCTCTCTCTAG
M13-R	TATCAACAGAAACGCACCGAG
M14-F	CCATTGGAGATGGTCTTAC
M14-R	CTTAAGCTCCAAGCTATCA
M15-F	AAACTCGAGAGTTTTGTCTAGATC
M15-R	CTCAGAGAATTCCCAGAAAAATCT
M16-F	CAGACGTATCAAATGACAAATG
M16-R	GACTACTGCTCAAATATTTCGG
M17-F	TTGGATCTGATATGTGATG
M17-R	TCGATAAATGCAAAAATAC
M18-F	AGGCACCAAAGAAACAAG
M18-R	CGTTGTGTTCAATTTATGAC
M19-F	GGGGACATTTAGGTGGTATC
M19-R	CATCGCCGCCAATACCTC
M20-F	TAAATTAAGGCCACAACCTG
M20-R	CATCGAAAAAGCACTTTAC
M21-F	CAAAAACTTTTGGAGTTTG
M21-R	GTCATTGTTATGCTACTTG
M22-F	CCCAGTCTAACCACGACCAC
M22-R	AATCCCAGTAACCAAACACACA
M23-F	TTCCCAGAGCTTGTTTTG
M23-R	AGTCTAAAAGCGAGAGTATG
M24-F	GGCTTTCTCGAAATCTGTCC
M24-R	TTACTTTTTGCCTCTTGTCATTG
M25-F	CTTTCAAAAGCACATCACA
M25-R	AGGTTTTATTGCTTTTCACA
M26-F	ACATTTTCTCAATCCTTACTC
M26-R	GAGAGCTTCTTTATTTGTGAT
M27-F	TAAAGATACGATTTCGTAAGA
M27-R	CTAGCAGGCAAATGAGAC
M28-F	GGCTCCATAAAAAAGTGCACC
M28-R	CTGATCTCACGGACAATAGTGC
M29-F	TGTTTTTTAGGACAAATGGCG
M29-R	CTCCAGTTGGAAGCTAAAGGG
M30-F	AATGAAGAATTGGGACTGTT
M30-R	ATATCCTCCTCCTGTGTCTC
M31-F	ACTCCGTCTTCCAGAGTT
M31-R	TAGTTATTTCTGGGTGATTAG
M32-F	CACGTTGTAGAGAAGTAATA
M32-R	GCCAGTTAATAGAATTTGTT
M33-F	CTTCTTTTAAACGACGATAT
M33-R	ATTGTTCAATGTTACCA
