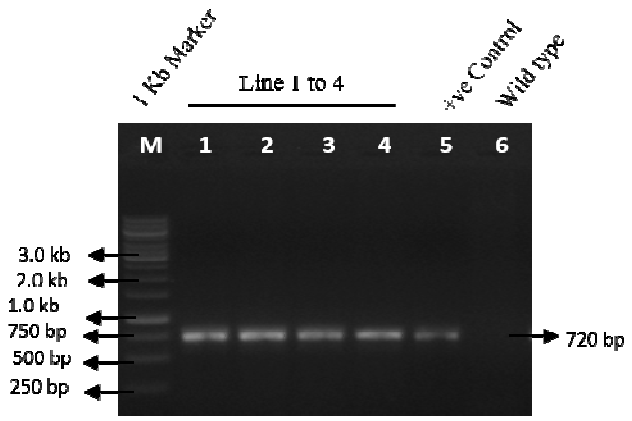
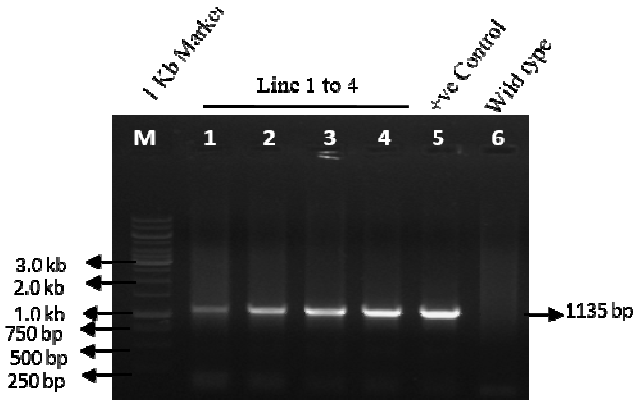
Supplementary Figure 1 - Molecular characterization of mulberry transgenic lines by PCR

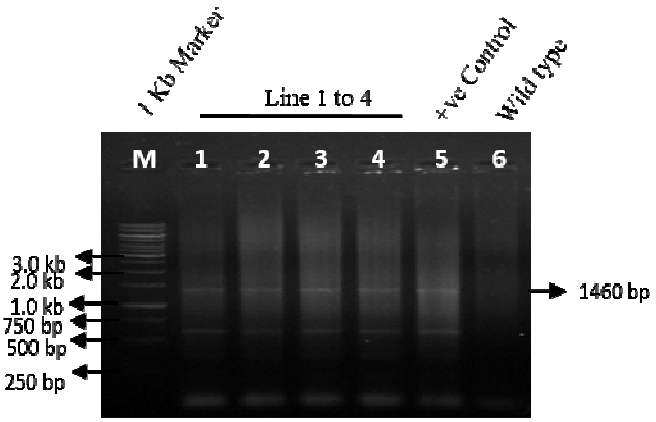
A. *Neomycin phosphotransferase II* (*NptII)* specific forward and reverse primers



B. *AtSHN1*specific forward and reverse primers



C. *AtSHN1*specific forward and Nos Terminator reverse primers



D. Multiple sequence alignment of sequences cloned from transgenic plants and plasmid (positive control) using San Diego Supercomputer Center (SDSC), Biology Workbench (http://workbench.sdsc.edu/).

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CLUSTAL W (1.81) multiple sequence alignment

AtSHN1_NosTer_Cloned_1          TTTATCCTAGTTTGCGCGCTATATTTTGTTTTCTATCGCGTATTAAATGT
AtSHN1_NosTer_Cloned_2_         --TATCCTAGTTTGCGCGCTATATTTTGTTTTCTATCGCGTATTAAATGT
AtSHN1_NosTer_Vector_Control    -------TAGTTTGCGCGCTATATTTTGTTTTCTATCGCGTATTAAATGT
                                       ****************************************

AtSHN1_NosTer_Cloned_1          ATAATTGCGGGACTCTAATCATAAAAACCCATCTCATAAATAACGTCATG
AtSHN1_NosTer_Cloned_2_         ATAATTGCGGGACTCTAATCATAAAAACCCATCTCATAAATAACGTCATG
AtSHN1_NosTer_Vector_Control    ATAATTGCGGGACTCTAATCATAAAAACCCATCTCATAAATAACGTCATG
                                ************************************************

AtSHN1_NosTer_Cloned_1          CATTACATGTTAATTATTACATGCTTAACGTAATTCAACAGAAATTATAT
AtSHN1_NosTer_Cloned_2_         CATTACATGTTAATTATTACATGCTTAACGTAATTCAACAGAAATTATAT
AtSHN1_NosTer_Vector_Control    CATTACATGTTAATTATTACATGCTTAACGTAATTCAACAGAAATTATAT
                                ************************************************

AtSHN1_NosTer_Cloned_1          GATAATCATCGCAAGACCGGCAACAGGATTCAATCTTAAGAAACTTTATT
AtSHN1_NosTer_Cloned_2_         GATAATCATCGCAAGACCGGCAACAGGATTCAATCTTAAGAAACTTTATT
AtSHN1_NosTer_Vector_Control    GATAATCATCGCAAGACCGGCAACAGGATTCAATCTTAAGAAACTTTATT
                                ************************************************

AtSHN1_NosTer_Cloned_1          GCCAAATGTTTGAACGATCGGGGAAATTCGAGCTCGGTACCTCGCGAATG
AtSHN1_NosTer_Cloned_2_         GCCAAATGTTTGAACGATCGGGGAAATTCGAGCTCGGTACCTCGCGAATG
AtSHN1_NosTer_Vector_Control    GCCAAATGTTTGAACGATCGGGGAAATTCGAGCTCGGTACCTCGCGAATG
                                ************************************************

AtSHN1_NosTer_Cloned_1          CATCTAGATTTAGTTACAAACACCAATACTTTATTAGATACAAATGTGGA
AtSHN1_NosTer_Cloned_2_         CATCTAGATTTAGTTACAAACACCAATACTTTATTAGATACAAATGTGGA
AtSHN1_NosTer_Vector_Control    CATCTAGATTTAGTTACAAACACCAATACTTTATTAGATACAAATGTGGA
                                ************************************************

AtSHN1_NosTer_Cloned_1          AAAAGAGAAACAATATATAGCTAACAACCTTTTAATATAAAACATCTATA
AtSHN1_NosTer_Cloned_2_         AAAAGAGAAACAATATATAGCTAACAACCTTTTAATATAAAACATCTATA
AtSHN1_NosTer_Vector_Control    AAAAGAGAAACAATATATAGCTAACAACCTTTTAATATAAAACATCTATA
                                ************************************************

AtSHN1_NosTer_Cloned_1          AAATACACGGTATAATTGATTATTTTGGCTGTAAATCAGCAATGAAAATA
AtSHN1_NosTer_Cloned_2_         AAATACACGGTATAATTGATTATTTTGGCTGTAAATCAGCAATGAAAATA
AtSHN1_NosTer_Vector_Control    AAATACACGGTATAATTGATTATTTTGGCTGTAAATCAGCAATGAAAATA
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AtSHN1_NosTer_Cloned_1          GGTACATATATATAAGCAAATAAGATT-AGTTTGTATTGAGAAGCTCTTC
AtSHN1_NosTer_Cloned_2_         GGTACATATATATAAGCAAATAAGATTTAGTTTGTATTGAGAAGCTCCTC
AtSHN1_NosTer_Vector_Control    GGTACATATATATAAGCAAATAAGATTTAGTTTGTATTGAGAAGCTCCTC
                                *************************** ******************* **

AtSHN1_NosTer_Cloned_1          TATCATTTGCAAAGCAACCTTTTCTTCCTCATCCAATACTTCTTCTCTGC
AtSHN1_NosTer_Cloned_2_         TATCATTTGCAAAGCAACCTTTTCTTCCTCATCCAATACTTCTTCTCTGC
AtSHN1_NosTer_Vector_Control    TATCATTTGCAAAGCAACCTTTTCTTCCTCATCCAATACTTCTTCTCTGC
                                ************************************************

AtSHN1_NosTer_Cloned_1          TGCCACCAATTTCAACTTCAGTGGTCGGAGCAAGAATAGCGTCTTGTGAA
AtSHN1_NosTer_Cloned_2_         TGCCACCAATTTCAACTTCAGTGGTCGGAGCAAGAATAGCGTCTTGTGAA
AtSHN1_NosTer_Vector_Control    TGCCACCAATTTCAACTTCAGTGGTCGGAGCAAGAATAGCGTCTTGTGAA
                                ************************************************

AtSHN1_NosTer_Cloned_1          GCTTTACTAGTAGTCTCTTGGGAGGAGCTTGCGGGACCTAGCTCCACCGT
AtSHN1_NosTer_Cloned_2_         GCTTTACTAGTAGTCTCTTGGGAGGAGCTTGCGGGACCTAGCTCCACCGT
AtSHN1_NosTer_Vector_Control    GCTTTACTAGTAGTCTCTTGGGAGGAGCTTGCGGGACCTAGCTCCACCGT
                                ************************************************

AtSHN1_NosTer_Cloned_1          CATGACCCAGCTGGAGTCAGACTCTGAACCGGCCCGTTTCTGCCAGACGC
AtSHN1_NosTer_Cloned_2_         CATGACCCAGCTGGAGTCAGACTTTGAACCGGCCCGTTTCTGCCAGACGC
AtSHN1_NosTer_Vector_Control    CATGACCCAGCTGGAGTCAGACTTTGAACCGGCCCGTTTCTGCCAGACGC
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AtSHN1_NosTer_Cloned_1            CGATATGGGAGCTGGCTGTGTCAAGACGGAGGCAGGTGAGGGATGGGGAA
AtSHN1_NosTer_Cloned_2_           CGATATGGGAGCTGGCTGTGTCAAGACGGAGGCAGGTGAGGGATGGGGAA
AtSHN1_NosTer_Vector_Control      CGATATGGGAGCTGGCTGTGTCAAGACGGAGGCAGGTGAGGGATGGGGAA
                                  **************************************************

AtSHN1_NosTer_Cloned_1            GGAGACTTGCAGCATTTCCTCAGTTTGGCGCTGAGGATGGAAGAGAGCGA
AtSHN1_NosTer_Cloned_2_           GGAGACTTGCAGCATTTCCTCAGTTTGGCGCTGAGGATGGAAGAGAGCGA
AtSHN1_NosTer_Vector_Control      GGAGACTTGCAGCATTTCCTCAGTTTGGCGCTGAGGATGGAAGAGAGCGA
                                  **************************************************

AtSHN1_NosTer_Cloned_1            TGAAGATGATGTTGAGGATGACATTGTGGACGAAGCTGAAA-TATCGGTT
AtSHN1_NosTer_Cloned_2_           TGAAGATGATGTTGAGGATGACATTGTGGACGAAGCTGAAA-TATCGGTT
AtSHN1_NosTer_Vector_Control      TGAAGATGATGTTGAGGATGACATTGTGGACGAAGCTGAAAATATCGGTT
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AtSHN1_NosTer_Cloned_1            TTGCCCTCGGAAGTTTCTCC-GGTGTTGTTGTTGTTGAGGGGAAAGTTGG
AtSHN1_NosTer_Cloned_2_           TTGCCCTCGGAAGTTTCTCCCGGTGTTGTTGTTGTTGAGGGGAAAGTTGG
AtSHN1_NosTer_Vector_Control      TTGCCCTCGGAAGTTTCTCC-GGTGTTGTTGTTGTTGAGGGGAAAGTTGG
                                  ********************* ******************************

AtSHN1_NosTer_Cloned_1            TTTTGGCGTTGCGGCCGCTCATTAAAACGGCGGCCTCGTCGTATGCTCTT
AtSHN1_NosTer_Cloned_2_           TTTTGGCGTTGCGGCCGCTCATTAAAACGGCGGCCTCGTCGTATGCTCTT
AtSHN1_NosTer_Vector_Control      TTTTGGCGTTGCGGCCGCTCATTAAA-CGGCGGCCTCGTCGTATGCTCTT
                                  *************************** ************************

AtSHN1_NosTer_Cloned_1            TGAATATATATATATATATAGTAGAATTTTTAAGCAATAACTTATTGATA
AtSHN1_NosTer_Cloned_2_           TGAATATATATATATATA--GTAGAATTTTTAAGCAATAACTTATTGATA
AtSHN1_NosTer_Vector_Control      TGAATATATATATATATATAGTAGAATTTTTAAGCAATAACTTATTGATA
                                  ******************  ******************************

AtSHN1_NosTer_Cloned_1            TTTACGTATCTAGATGTTAAAATGATTTTATGTGTTAGCTAAGAAGAGGA
AtSHN1_NosTer_Cloned_2_           TTTACGTATCTAGATGTTAAAATGATTTTATGTGTTAGCTAAGAAGAGGA
AtSHN1_NosTer_Vector_Control      TTTACGTATCTAGATGTTAAAATGATTTTATGTGTTAGCTAAGAAGAGGA
                                  **************************************************

AtSHN1_NosTer_Cloned_1            AAACAACAAAGGAAGATAAACCAGAAATGAGTTAGCTACGATCATGTATA
AtSHN1_NosTer_Cloned_2_           AAACAACAAAGGAAGATAAACCAGAAATGAGTTAGCTACGATCATGTATA
AtSHN1_NosTer_Vector_Control      AAACAACAAAGGAAGATAAACCAGAAATGAGTTAGCTACGATCATGTATA
                                  **************************************************

AtSHN1_NosTer_Cloned_1            TATATGTATGTGTGGTTGTGTACTTTAATGGATCAGAGAGAGGAAATAAA
AtSHN1_NosTer_Cloned_2_           TATATGTATGTGTGGTTGTGTACTTTAATGGATCAGAGAGAGGAAATAAA
AtSHN1_NosTer_Vector_Control      TATATGTATGTGTGGTTGTGTACTTTAATGGATCAGAGAGAGGAAATAAA
                                  **************************************************

AtSHN1_NosTer_Cloned_1            TGAACAACGCAGAGAAAAAGGAAAGAAAGAAGAAAGGTACAAGAGAGGAT
AtSHN1_NosTer_Cloned_2_           TGAACAACGCAGAGAAAAAGGAAAGAAAGAAGAAAGGTACAAGAGAGGAT
AtSHN1_NosTer_Vector_Control      TGAACAACGCAGAGAAAAAGGAAAGAAAGAAGAAAGGTACAAGAGAGGAT
                                  **************************************************

AtSHN1_NosTer_Cloned_1            GACGAATCTCAGCGACCCAAGAACCCCAATGGCGTTGCCTGACACCTCTG
AtSHN1_NosTer_Cloned_2_           GACGAATCTCAGCGACCCAAGAACCCCAATGGCGTTGCCTGACACCTCTG
AtSHN1_NosTer_Vector_Control      GACGAATCTCAGCGACCCAAGAACCCCAATGGCGTTGCCTGACACCTCTG
                                  **************************************************

AtSHN1_NosTer_Cloned_1            AACTTCTTCGTCTGTACCATTCTTACTTACTCTGTG
AtSHN1_NosTer_Cloned_2_           AACTTCTTCGTCTGTACCATTCTTACTTACTCTG--
AtSHN1_NosTer_Vector_Control      AACTTCTTCGTCTGTACCATTCTTACTTACTCTGTG
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