

Modification of Monolignol Biosynthetic Pathway in Jute: Different Gene, Different Consequence

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Figure 1.1: Sequence of C4H-RNAi construct



Figure 1.2: Sequence of COMT-RNAi construct

Supplementary Table 1: List of Primers

Primer name	Sequence	Tm(°C)
COMT_Degenerate_for	5'-ATGRGTTTCRACYGGTKAAAC-3'	60.0
COMT_Degenerate_rev	5'-TTATRTGYCAACARCTACACG-3'	
C4H_Degenerate_for	5'-ATGGRTCTYCTCTTCCTRGAG-3'	59.0
C4H_Degenerate_rev	5'-TTAARAACYGCGTGRCTTAC-3'	
COMT_GSP_FOR	5'-TACCCGGGATGGGTCAACTGC-3'	60.0
COMT_GSP_REV	5'-TGGAGCTCTTAAACAGTTTTGAGGAACTC-3'	
C4H_GSP_FOR	5'-ATCCCGGGATGGATCTTCTCTTCCTGGAG-3'	58.0
C4H_GSP_REV	5'-ATGAGCTCTTAAAACTGCGTGGCTTAC-3'	
C4H-RNAi_For	5'- ATGATATCCCCGCTGAGAGC-3'	58.0
C4H-RNAi_Rev	5'- GCTTTGCCCATCCTTGGTAT-3'	
COMT-RNAi_For	5'- ACCCAATTCCTCCAACCTCAAG-3'	59.0
COMT-RNAi_Rev	5'-CGCTCTTTCCGCCCTTAATCTC-3'	
Intron F	5'-GTCTCATACCAACAAGTGCCACCTT-3'	60.0
Intron R	5'-TGCATCTAAACCCCTATGGCCA-3'	
Actin For	5'-TGGTATTGGATGTTGGAGAT-3'	58.0
Actin Rev	5'-GGTATTGACTTAATGCTGCT-3'	

Supplementary Table 2: P values from one way ANOVA test for each parameters described in the text.

Alpha value = 0.05. Significance. Codes for P value: '***' <0.001 '**' < 0.01 '*' < 0.05 '.' <0.1 ' ' <1

Parameters	P value
Plant height	0.363
Plant width	0.0371.
Pod number	1.64e-08 ***
Pod length	0.058.
% Klason lignin (whole stem)	<2e-16 ***
% Klason lignin (fiber)	<2e-16 ***
% Cellulose (whole stem)	5.65e-14 ***
Ratio of cellulose to lignin	<2e-16 ***
Amount of glucose released (mg/g of sample)	8.11e-05 ***
S (%)	1.95e-15 ***
G (%)	1.95e-15 ***
S/G=	2.38e-14 ***
P Coumarates (%)*	0.00493 **

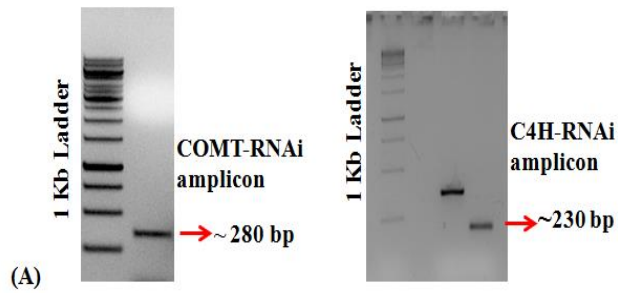


Figure 2: Agarose gel electrophoreses illustrates the RNAi-primer based amplification of COMT and C4H gene

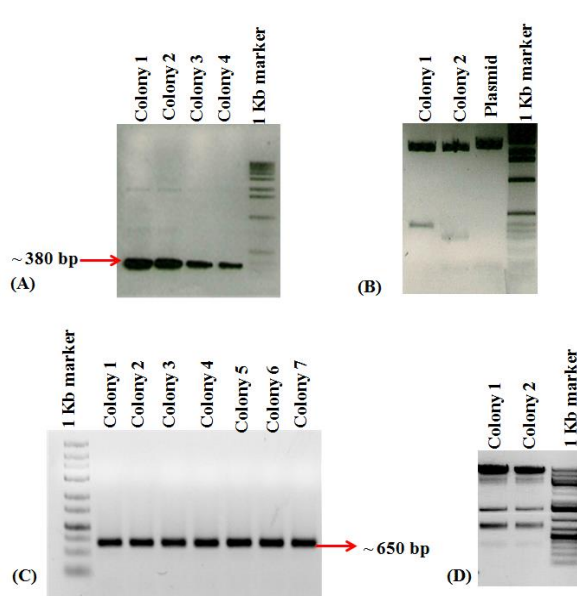


Figure 3.1: Represents the cloning confirmation for COMT-RNAi. (A) Colony PCR from pENTER11 (B) COMT-RNAi insert release from pENTER11 (C) Colony PCR from destination vector pK7GWIWG (II) (D) Insert release from destination vector upon restriction digestion with *BamHI/XhoI*.

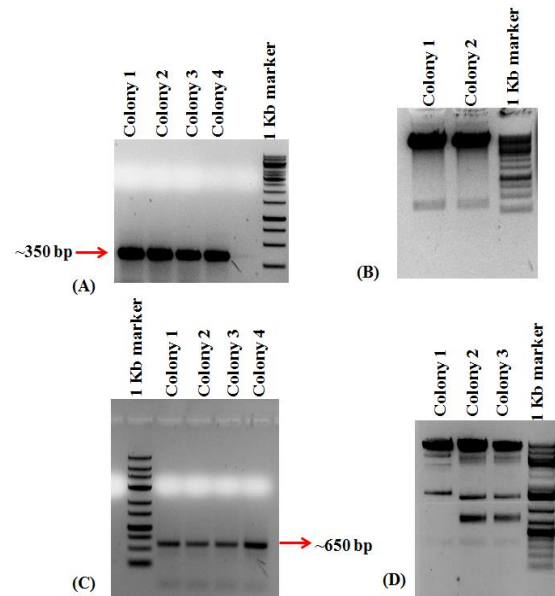


Figure 3.2: Shows the cloning confirmation for C4H-RNAi. (A) Colony PCR from pENTER11 (B) C4H-RNAi insert release from pENTER11 (C) Colony PCR from destination vector pK7GWIWG (II) (D) Insert release from destination vector upon restriction digestion with *BamHI/XhoI*