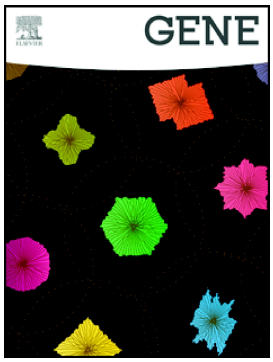

Identification and expression profiling of genes governing lignin biosynthesis in Casuarina equisetifolia L.

Balasubramanian Vikashini, Arunachalam Shanthi, Modhumita Ghosh Dasgupta

PII: S0378-1119(18)30781-9
DOI: doi:10.1016/j.gene.2018.07.012
Reference: GENE 43053

To appear in: *Gene*

Received date: 11 April 2018
Revised date: 14 June 2018
Accepted date: 5 July 2018

Please cite this article as: Balasubramanian Vikashini, Arunachalam Shanthi, Modhumita Ghosh Dasgupta , Identification and expression profiling of genes governing lignin biosynthesis in Casuarina equisetifolia L.. Gene (2018), doi:10.1016/j.gene.2018.07.012

Identification and expression profiling of genes governing lignin biosynthesis in *Casuarina equisetifolia L.*

BalasubramanianVikashini[1], Arunachalam Shanthi[1], Modhumita Ghosh Dasgupta[1*]

[1]Institute of Forest Genetics and Tree Breeding, R.S. Puram, Coimbatore -641002, Tamil Nadu, India

*** Correspondence:**

Dr. Modhumita Ghosh Dasgupta

Scientist F

Division of Plant Biotechnology & Cytogenetics

Institute of Forest Genetics and Tree Breeding

R.S. Puram, Coimbatore -641002

Tamil Nadu, India

Orcid ID: 0000-0001-8878-5911

Email: gmodhumita@gmail.com; modhumitaghosh@hotmail.com

Tel No.: +91-422-2484123

Abstract

Casuarina equisetifolia L. is an important multi-purpose, fast growing and widely planted tree species native to tropical and subtropical coastlines of Australia, Southeast Asia, Malaysia, Melanesia, Polynesia and New Caledonia. It is a nitrogen-fixing tree mainly used for charcoal making, construction poles, landscaping, timber, pulp, firewood, windbreaks, shelterbelts, soil erosion and sand dune stabilization. Casuarina wood is presently used for paper and pulp production. Raw material with reduced lignin is highly preferred to increase the pulp yield. Hence, understanding the molecular regulation of wood formation in this tree species is vital for