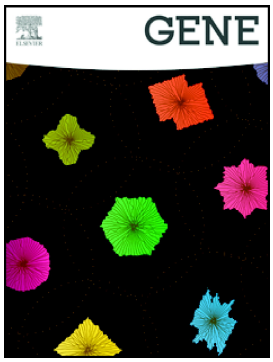
Accepted Manuscript



Role of xyloglucan in cotton (Gossypium hirsutum L.) fiber elongation of the short fiber mutant Ligon lintless-2 (Li2)

Marina Naoumkina, Doug J. Hinchliffe, David D. Fang, Christopher B. Florane, Gregory N. Thyssen

PII: S0378-1119(17)30388-8
DOI: doi: 10.1016/j.gene.2017.05.042
Reference: GENE 41942

To appear in: *Gene*

Received date: 30 December 2016
Revised date: 8 May 2017
Accepted date: 21 May 2017

Please cite this article as: Marina Naoumkina, Doug J. Hinchliffe, David D. Fang, Christopher B. Florane, Gregory N. Thyssen , Role of xyloglucan in cotton (Gossypium hirsutum L.) fiber elongation of the short fiber mutant Ligon lintless-2 (Li2), *Gene* (2017), doi: 10.1016/j.gene.2017.05.042

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

ACCEPTED MANUSCRIPT

Role of xyloglucan in cotton (*Gossypium hirsutum* L.) fiber elongation of the short fiber mutant Ligon lintless-2 (Li_2)

Marina Naoumkina[1*], Doug J. Hinchliffe[2], David D. Fang[1], Christopher B. Florane[1], Gregory N. Thyssen[1, 2]

[1]Cotton Fiber Bioscience Research Unit, United States Department of Agriculture (USDA), Agricultural Research Service (ARS), Southern Regional Research Center (SRRC), 1100 Robert E. Lee Blvd, New Orleans, LA 70124, USA;

[2]Cotton Chemistry and Utilization Research Unit, USDA-ARS-SRRC, 1100 Robert E. Lee Blvd, New Orleans, LA 70124, USA;

*For correspondence (e-mail marina.naoumkina@ars.usda.gov).

Highlights

- The amount of xyloglucan is significantly higher in Li_2 than in wild type developing fibers
- Nine families of genes encoding enzymes involved in xyloglucan biosynthesis are identified in the *Gossypium hirsutum* genome
- The peak of expression for the majority of xyloglucan-related genes in wild type developing fibers is 5-16 days post anthesis compared to 1-3 days post anthesis in Li_2 fibers

Download English Version:

https://daneshyari.com/en/article/5589257

Download Persian Version:

https://daneshyari.com/article/5589257

Daneshyari.com