

Expression pattern of four storage xyloglucan mobilisation related genes during seedling development of the rain forest tree *Hymenaea courbaril* L.

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Table S1. Accessions numbers of sequences used in phylogenetic analyses.

β-Galactosidase

Accession number	Gene name	Organism
EU370969	<i>HcBGAL1</i>	<i>Hymenaea courbaril</i>
CAA09457	<i>CanBGAL-4</i>	<i>Cicer arietinum</i>
CAA06309	<i>CanBGAL-3</i>	<i>Cicer arietinum</i>
AJ012687		<i>Cicer arietinum</i>
AT3G13750	<i>At-BGAL1</i>	<i>Arabidopsis thaliana</i>
AT3G52840	<i>At-BGAL2</i>	<i>Arabidopsis thaliana</i>
AT4G36360	<i>At-BGAL3</i>	<i>Arabidopsis thaliana</i>
AT5G56870	<i>At-BGAL4</i>	<i>Arabidopsis thaliana</i>
AT1G45130	<i>At-BGAL5</i>	<i>Arabidopsis thaliana</i>
AT5G63800	<i>At-BGAL6</i>	<i>Arabidopsis thaliana</i>
AT5G20710	<i>At-BGAL7</i>	<i>Arabidopsis thaliana</i>
AT2G28470	<i>At-BGAL8</i>	<i>Arabidopsis thaliana</i>
AT2G32810	<i>At-BGAL9</i>	<i>Arabidopsis thaliana</i>
AT5G63810	<i>At-BGAL10</i>	<i>Arabidopsis thaliana</i>
AT4G35010	<i>At-BGAL11</i>	<i>Arabidopsis thaliana</i>
AT4G26140	<i>At-BGAL12</i>	<i>Arabidopsis thaliana</i>
AT2G16730	<i>At-BGAL13</i>	<i>Arabidopsis thaliana</i>
AT4G38590	<i>At-BGAL14</i>	<i>Arabidopsis thaliana</i>
AT1G31740	<i>At-BGAL15</i>	<i>Arabidopsis thaliana</i>
AT1G77410	<i>At-BGAL16</i>	<i>Arabidopsis thaliana</i>
AT1G72990	<i>At-BGAL17</i>	<i>Arabidopsis thaliana</i>
Os01g0580200		<i>Oryza sativa</i>
Os01g0875500		<i>Oryza sativa</i>
Os03g0165400		<i>Oryza sativa</i>
Os03g0255100		<i>Oryza sativa</i>
Os06g0573600		<i>Oryza sativa</i>
Os08g0549200		<i>Oryza sativa</i>
Os12g0429200		<i>Oryza sativa</i>
NP920740		<i>Oryza sativa</i>
XP475258		<i>Oryza sativa</i>
AF020390		<i>Solanum lycopersicum</i>
AJ012796		<i>Solanum lycopersicum</i>
AJ012798		<i>Solanum lycopersicum</i>
AJ278703		<i>Fragaria x ananassa</i>
AJ278705		<i>Fragaria x ananassa</i>
L29451		<i>Malus domestica</i>

XTH

Accession number	Gene name	Organism
EU370971	<i>HcXTH1</i>	<i>Hymenaea courbaril</i>
AB086396	<i>Va-XTH2</i>	<i>Vigna angularis</i>
AB086395	<i>Va-XTH1</i>	<i>Vigna angularis</i>
AT4G13080	<i>At-XTH1</i>	<i>Arabidopsis thaliana</i>
AT4G13090	<i>At-XTH2</i>	<i>Arabidopsis thaliana</i>
AT3G25050	<i>At-XTH3</i>	<i>Arabidopsis thaliana</i>
AT2G06850	<i>At-XTH4</i>	<i>Arabidopsis thaliana</i>
AT5G13870	<i>At-XTH5</i>	<i>Arabidopsis thaliana</i>
AT5G65730	<i>At-XTH6</i>	<i>Arabidopsis thaliana</i>
AT4G37800	<i>At-XTH7</i>	<i>Arabidopsis thaliana</i>
AT1G11545	<i>At-XTH8</i>	<i>Arabidopsis thaliana</i>
AT4G03210	<i>At-XTH9</i>	<i>Arabidopsis thaliana</i>
AT2G14620	<i>At-XTH10</i>	<i>Arabidopsis thaliana</i>
AT3G48580	<i>At-XTH11</i>	<i>Arabidopsis thaliana</i>
AT5G57530	<i>At-XTH12</i>	<i>Arabidopsis thaliana</i>
AT5G57540	<i>At-XTH13</i>	<i>Arabidopsis thaliana</i>
AT4G25820	<i>At-XTH14</i>	<i>Arabidopsis thaliana</i>
AT4G14130	<i>At-XTH15</i>	<i>Arabidopsis thaliana</i>
AT3G23730	<i>At-XTH16</i>	<i>Arabidopsis thaliana</i>
AT1G65310	<i>At-XTH17</i>	<i>Arabidopsis thaliana</i>
AT4G30280	<i>At-XTH18</i>	<i>Arabidopsis thaliana</i>
AT4G30290	<i>At-XTH19</i>	<i>Arabidopsis thaliana</i>
AT5G48070	<i>At-XTH20</i>	<i>Arabidopsis thaliana</i>
AT2G18800	<i>At-XTH21</i>	<i>Arabidopsis thaliana</i>
AT5G57560	<i>At-XTH22</i>	<i>Arabidopsis thaliana</i>
AT4G25810	<i>At-XTH23</i>	<i>Arabidopsis thaliana</i>
AT4G30270	<i>At-XTH24</i>	<i>Arabidopsis thaliana</i>
AT5G57550	<i>At-XTH25</i>	<i>Arabidopsis thaliana</i>
AT4G28850	<i>At-XTH26</i>	<i>Arabidopsis thaliana</i>
AT2G01850	<i>At-XTH27</i>	<i>Arabidopsis thaliana</i>
AT1G14720	<i>At-XTH28</i>	<i>Arabidopsis thaliana</i>
AT4G18990	<i>At-XTH29</i>	<i>Arabidopsis thaliana</i>
AT1G32170	<i>At-XTH30</i>	<i>Arabidopsis thaliana</i>
AT3G44990	<i>At-XTH31</i>	<i>Arabidopsis thaliana</i>
AT2G36870	<i>At-XTH32</i>	<i>Arabidopsis thaliana</i>
AT1G10550	<i>At-XTH33</i>	<i>Arabidopsis thaliana</i>
Os02g0127800		<i>Oryza sativa</i>
Os03g0108300		<i>Oryza sativa</i>
Os03g0239000		<i>Oryza sativa</i>
Os03g0854600		<i>Oryza sativa</i>
Os03g0117300		<i>Oryza sativa</i>
Os04g0604200		<i>Oryza sativa</i>

Os06g0696400	<i>Oryza sativa</i>
Os06g0696600	<i>Oryza sativa</i>
Os06g0697000	<i>Oryza sativa</i>
Os07g0480800	<i>Oryza sativa</i>
Os08g0237800	<i>Oryza sativa</i>
Os08g0240500	<i>Oryza sativa</i>
Os08g0237000	<i>Oryza sativa</i>
Os11g0539200	<i>Oryza sativa</i>
AA39950	<i>Tropaolum majus</i>

Alkaline invertase

EU370968	<i>HcAlkIN1</i>	<i>Hymenaea courbaril</i>
AT1G35580		<i>Arabidopsis thaliana</i>
AT1G22650		<i>Arabidopsis thaliana</i>
AT1G72000		<i>Arabidopsis thaliana</i>
AT1G56560		<i>Arabidopsis thaliana</i>
AT3G05820		<i>Arabidopsis thaliana</i>
AT3G06500		<i>Arabidopsis thaliana</i>
AT4G09510		<i>Arabidopsis thaliana</i>
AT4G34860		<i>Arabidopsis thaliana</i>
AT5G22510		<i>Arabidopsis thaliana</i>
AY575558	<i>OsNIN1</i>	<i>Oryza sativa</i>
AY575559	<i>OsNIN2</i>	<i>Oryza sativa</i>
AY575560	<i>OsNIN3</i>	<i>Oryza sativa</i>
AY575561	<i>OsNIN4</i>	<i>Oryza sativa</i>
AY575562	<i>OsNIN5</i>	<i>Oryza sativa</i>
AY575563	<i>OsNIN6</i>	<i>Oryza sativa</i>
AY575564	<i>OsNIN7</i>	<i>Oryza sativa</i>
AY575565	<i>OsNIN8</i>	<i>Oryza sativa</i>

Sucrose synthase

EU370970	<i>HcSUS1</i>	<i>Hymenaea courbaril</i>
P31926	<i>SUSY VICFA</i>	<i>Vicia faba</i>
O65026	<i>SUSY MEDSA</i>	<i>Medicago sativa</i>
Q01390	<i>SUSY PHAAU</i>	<i>Vigna radiata</i>
CAC32462	<i>SUS3</i>	<i>Pisum sativum</i>
CAA09910		<i>Pisum sativum</i>
ACC28107	<i>SUS</i>	<i>Pisum sativum</i>
CAB40794		<i>Medicago truncatula</i>
ABP88869		<i>Medicago sativa</i>
P13708	<i>SUSY SOYBN</i>	<i>Glycine max</i>
AAN76498		<i>Phaseolus vulgaris</i>
AT5G20830	<i>At-SUS1</i>	<i>Arabidopsis thaliana</i>

AT5G49190	<i>At-SUS2</i>	<i>Arabidopsis thaliana</i>
AT4G02280	<i>At-SUS3</i>	<i>Arabidopsis thaliana</i>
AT3G43190	<i>At-SUS4</i>	<i>Arabidopsis thaliana</i>
AT5G37180	<i>At-SUS5</i>	<i>Arabidopsis thaliana</i>
AT1G73370	<i>At-SUS6</i>	<i>Arabidopsis thaliana</i>
Os02g0831500		<i>Oryza sativa</i>
Os03g0340500		<i>Oryza sativa</i>
Os03g0401300		<i>Oryza sativa</i>
Os04g0309600		<i>Oryza sativa</i>
Os06g0194900		<i>Oryza sativa</i>
Os07g0616800		<i>Oryza sativa</i>

Table S2. Primers sequences used to obtain partial cDNA for PCR and RT-PCR experiments

Gene	Primer Foward - 5'	Primer Reverse - 5'	Length
BG	* 1. GTTGAAATAACAAGATTC	*1'. CAAWGAAATCCAGAAGGRTC	435pb
	* 2. CAAGATTCCTTACTTAGTGTTG	*2'. CCAGAAGGKTCWCCTCCCATTC	400pb
	A. GCGTCATAGTCATAGCTTG	A. CAGATTGAGAACGAGTATGG	
XTH	*1. GGTTCTGGTGATTC(A/T)GCTGG	*1'. GATTC(A/T)GCTGG(A/C)ACAGT(C/T)ACTGC	333pb
	*2. GCCCA(G/A)TCATC(A/T)GCATTCC	*2'. C(A/T)GCATTCCA(C/T)AAACT(G/A)TTG	330pb
	A. CTGCTGGAACAGTTACTGC	A. CTGCATTCCATAAACTGTTG	
AlkIn	*1. CTTGTGCTGA(C/T)GG(T/A)TG(T/C)TC	*1'. GAAGAAGACAA(C/T)C(A/T)(G/C)ATGAAACC	819pb
	*2. GGTTTCAT(G/C)(A/T)G(C/T)TTGTCTTCTTC	*2'. GAT(A/G)TC(A/G)CTTGAAGAAGAC	440pb
	A. GAACGGTTGCTCTATGGTTG	A. CACCAGAGCAATCAATGGC	
SUS	*1. TGGCACATAA(T/C)T(A/G)GGTG	*1'. A(T/C)T(A/G)GGTGCACTCAGTG	1146pb
	*2. CAATTTGCGGTACTTGAGAG	2'. TACTTGACAGCATAGAACATC	410pb
	A. GATCTGCGACACCAAGGGAG	A. TACTTGACAGCATAGAACATC	
Actin	*1. ATTGT(A/T)GGTCGTCC(A/T)CGTCACAC	*1. CCAGAATCCA(A/G)(A/C)ACAATACC	371pb
	A. GTCGTCCACGTCACTG	A. CCAGAATCCAGCACAATACC	360pb

BG = β -Galactosidase; XTH = xyloglucan endotransglycosylase hydrolase; AlkIn = Alkaline invertase; SUS = sucrose synthase; * = nested degenerate primers for Leguminosae. A = specific primers for *Hymenaea courbaril*.