

Table S23. Homology of the candidate reference genes and the cuticle biosynthesis-related transcripts from *Stenocereus thurberi*. The homologous search was carried out through BLAST alignment of the *S. thurberi* transcriptome to *Hylocereus polyrhizus* transcripts, TAIR, ITAG, and SwissProt database using a maximal E value of 1×10^{-5} . Abbreviations: Actin 7 (*StACT7*), alpha-tubulin (*StTUA*), elongation factor 1-alpha (*StEF1a*), COPI-interactive protein 1 (*StCIP1*), plasma membrane ATPase 4 (*StPMA4*), BEL1-like homeodomain protein 1 (*StBLH1*), polyubiquitin 3 (*StUBQ3*), plastidic ATP/ADP-transporter (*StTLC1*), cytochrome p450 family 77 subfamily A (*StCYP77A*), Gly-Asp-Ser-Leu motif lipase/esterase 1 (*StGDSL1*), and ATP binding cassette transporter family G member 11 (*StABCG11*). *S. thurberi* transcripts identified in this study were designated with the prefix “St” and the name of their best homologous match from other plant species.

Transcript ID	Length (bp)	Gene name	Identity (%)	E value	Species	Reference ID Accession
REFERENCE GENES						
<i>Cactus fruits homologous:</i>						
TRINITY_DN18765_c 1_g4_i6	1230	<i>StACT7</i>	96.4 97.1	0.0 0.0	<i>Hylocereus polyrhizus</i> <i>Arabidopsis thaliana</i>	SRR2924904 P53492
TRINITY_DN23775_c 0_g3_i7	1540	<i>StTUA</i>	93.7 96.1	0.0 0.0	<i>H. polyrhizus</i> <i>Hordeum vulgare</i>	SRR2924904 Q43473
TRINITY_DN27812_c 0_g3_i2	1841	<i>StEF1a</i>	97.4 94.6	0.0 0.0	<i>H. polyrhizus</i> <i>Beta vulgaris</i>	SRR2924904 O23755
<i>Minimal CV:</i>						
TRINITY_DN22912_c 3_g1_i4	5879	<i>StCIP1</i>	30.0	$3.59e^{-50}$	<i>A. thaliana</i>	F4JZY1
TRINITY_DN26123_c 0_g1_i16	2382	<i>StPMA4</i>	85.9	$2.5e^{-176}$	<i>Nicotiana plumbaginifolia</i>	Q03194
TRINITY_DN20216_c 2_g1_i8	4321	<i>StBLH1</i>	66.5	$5.91e^{-80}$	<i>A. thaliana</i>	Q9SJ56
TRINITY_DN26064_c 1_g5_i3	1929	<i>StUBQ3</i>	100	$1.4e^{-177}$	<i>A. thaliana</i>	Q1EC66
TRINITY_DN25430_c 1_g2_i9	2637	<i>StTLC1</i>	80.1	0.0	<i>Solanum tuberosum</i>	O24381
CUTICLE BIOSYNTHESIS-RELATED TRANSCRIPTS						
TRINITY_DN17030_c 0_g1_i2	1962	<i>StCYP77A</i>	68.3 68.5	0.0 0.0	<i>A. thaliana</i> <i>Solanum melongena</i>	AT5G04660 P37124
TRINITY_DN15394_c 0_g1_i1	1605	<i>StGDSL1</i>	72.5 68.6	0.0 $1.16e^{-172}$	<i>Solanum lycopersicum</i> <i>A. thaliana</i>	Solyc03g121180 Q9LU14
TRINITY_DN23528_c 1_g1_i1	3010	<i>StABCG11</i>	86.6 85.3	0.0 0.0	<i>S. lycopersicum</i> <i>A. thaliana</i>	Solyc03g019760 AT1G17840