

**Table S4.** Genes common to *N. benthamiana* and *S. pennellii* that are preferentially expressed in trichomes or underlying tissues

Transcripts of the genes listed in this table hybridized to identical elements in microarray experiments. Only the top 20 of 134 preferentially leaf-expressed genes are listed; ratios correspond to the level of expression of any given gene in trichomes as compared to its expression in underlying leaf tissues; annotations correspond to the protein description that is most closely related to the predicted product of each gene; N.b.: *N. benthamiana*; S.p.: *S. pennellii*. In bold: genes associated with branched-chain amino acid biosynthesis.

Unigene Number	Ratio (N.b.)	Ratio (S.p.)	Annotation
<i>Genes preferentially expressed in trichomes</i>			
<b>SGN-U221864</b>	7.04	6.46	<b>putative dihydrolipoyltransferase subunit of the BCKD complex [Oryza sativa]</b>
SGN-U222218	6.56	2.65	non-specific lipid transfer protein [Lycopersicon esculentum]
SGN-U217123	6.44	4.47	CYP96A1 monooxygenase [Arabidopsis thaliana]
SGN-U212741	6.23	2.25	cytochrome P450 [Solanum tuberosum]
SGN-U212704	5.15	7.60	no hits found
SGN-U219367	3.31	2.45	CPN10 (CHAPERONIN 10) [Arabidopsis thaliana]
SGN-U215204	3.30	2.79	3-ketoacyl-CoA synthase [Gossypium hirsutum]
SGN-U220228	3.10	3.95	putative carboxyl-terminal proteinase [Gossypium hirsutum]
SGN-U214256	2.96	2.82	annexin p34 [Lycopersicon esculentum]
SGN-U213444	2.86	3.59	xyloglucan endotransglucosylase/hydrolase XTH5 [Lycopersicon esculentum]
SGN-U212736	2.62	2.48	non-specific lipid transfer protein [Lycopersicon esculentum]
SGN-U217016	2.61	4.59	elicitor inducible beta-1,3-glucanase NtEIG-E76 [Nicotiana tabacum]
SGN-U225169	2.46	2.24	CYP77A2 [Solanum melongena]
<b>SGN-U215900</b>	2.42	3.54	<b>putative threonine dehydratase/deaminase [Oryza sativa]</b>
SGN-U241632	2.30	5.46	protein kinase 1 [Nicotiana tabacum]
SGN-U222458	2.21	6.08	no hits found
SGN-U214120	2.17	3.17	beta-galactosidase [Lycopersicon esculentum]
SGN-U230350	2.09	2.50	ANAC058; transcription factor [Arabidopsis thaliana]
SGN-U213009	2.04	2.03	ras-related GTP-binding protein [Nicotiana tabacum]
SGN-U217557	2.01	2.58	ALY protein [Nicotiana benthamiana]
<i>Genes preferentially expressed in non-trichome leaf tissues</i>			
SGN-U232243	0.12	0.11	glycolate oxidase [Hyacinthus orientalis]
SGN-U216905	0.14	0.21	chlorophyll a/b-binding protein type III precursor - tomato
SGN-U213381	0.15	0.19	photosystem I reaction center subunit X psaK [Nicotiana tabacum]
SGN-U213031	0.15	0.23	plastocyanin precursor [Solanum commersonii]
SGN-U223250	0.16	0.13	putative epsilon-ring carotene hydroxylase [Daucus carota subsp. sativus]
SGN-U213320	0.16	0.18	Glyceraldehyde-3-phosphate dehydrogenase B, chloroplast precursor
SGN-U226356	0.16	0.19	putative nuclear protein NAP [Oryza sativa]
SGN-U212864	0.17	0.17	chlorophyll a,b binding protein type I [Solanum tuberosum]
SGN-U213080	0.17	0.12	carbonic anhydrase [Lycopersicon esculentum]
SGN-U213041	0.17	0.15	chlorophyll a/b binding protein [Solanum tuberosum]
SGN-U215124	0.17	0.12	ultraviolet-B-repressible protein [Gossypium hirsutum]
SGN-U233373	0.17	0.29	NADH-dependent hydroxypyruvate reductase [Cucumis sativus]
SGN-U214650	0.17	0.15	unknown [Lycopersicon esculentum]
SGN-U218922	0.18	0.33	Chlorophyll a-b binding protein 1B, chloroplast precursor (LHCII type I CAB1B) (LHCP)
SGN-U213473	0.18	0.35	putative desaturase-like protein [Trifolium repens]
SGN-U213223	0.18	0.19	chlorophyll a/b-binding protein [Lycopersicon esculentum]
SGN-U213530	0.18	0.25	aminotransferase 2 [Cucumis melo]
SGN-U213105	0.19	0.19	chlorophyll a/b-binding protein
SGN-U235353	0.19	0.17	Glyceraldehyde-3-phosphate dehydrogenase A, chloroplast precursor
SGN-U212700	0.19	0.18	plastidic aldolase NPALDP1 [Nicotiana paniculata]