



Fig. 1 Suppl. Subcellular localization of green fluorescent protein (GFP) fusions in *Nicotiana benthamiana* protoplasts isolated from the cells of agroinfiltrated plants. Transient gene expressions of plant expression vectors, with leader signal sequences providing their localization in various compartments of plant cells, demonstrate that the GFP fusion protein localized in the cytosol (A), chloroplasts (B), endoplasmic reticulum (C), and non-transformed protoplasts (D). The merged images (the *first column*) include the GFP channel (*green*) and the chloroplast autofluorescence channel (*red*). Each picture represents a single protoplast. All images obtained using single-sectioned fixed focus plane produced by *ApoTome* module (*Zeiss*). The *scale bar* is 40  $\mu\text{m}$ .

Table 1 Suppl. Fatty acid (FA) composition (in percentage of the total FA content) of wild type (WT) and agroinfiltrated (AI) *Nicotiana benthamiana* plants. Means  $\pm$  SE of six experiments. *Asterisks* indicate significant differences at  $P \leq 0.05$  when compared with WT leaves.

FA content	16:0	16:1	16:3	18:0	18:1	18:2	18:3	DBI	SDR	PDR
WT	20.15 $\pm$ 0.82	2.75 $\pm$ 0.31	4.30 $\pm$ 0.18	3.73 $\pm$ 0.28	2.60 $\pm$ 0.10	8.74 $\pm$ 0.38	49.36 $\pm$ 1.70	1.94 $\pm$ 0.08	0.40 $\pm$ 0.06	0.12 $\pm$ 0.01
AI	22.16 $\pm$ 1.74	2.40 $\pm$ 0.35	3.27 $\pm$ 0.68*	3.15 $\pm$ 0.25	0.79 $\pm$ 0.17*	7.42 $\pm$ 0.25	52.74 $\pm$ 1.54	1.94 $\pm$ 0.03	0.22 $\pm$ 0.01*	0.10 $\pm$ 0.01

Table 2 Suppl. Fatty acid (FA) composition (in percentage of the total FA content) of wild type (WT) and agroinfiltrated (AI) *Nicotiana excelsior* plants. Means  $\pm$  SE of six experiments. *Asterisks* indicate significant differences at  $P \leq 0.05$  when compared with WT leaves.

FA content	16:0	16:1	16:3	18:0	18:1	18:2	18:3	DBI	SDR	PDR
WT	39.56 $\pm$ 0.93	1.85 $\pm$ 0.42	4.89 $\pm$ 0.21	9.05 $\pm$ 0.24	5.08 $\pm$ 0.86	12.7 $\pm$ 0.42	23.38 $\pm$ 1.1	1.18 $\pm$ 0.06	0.34 $\pm$ 0.04	0.04 $\pm$ 0.02
AI	38.73 $\pm$ 1.53	3.54 $\pm$ 0.49*	3.84 $\pm$ 0.17*	10.2 $\pm$ 0.57	1.40 $\pm$ 0.20*	14.4 $\pm$ 0.57	23.61 $\pm$ 0.88	1.19 $\pm$ 0.05	0.12 $\pm$ 0.02*	0.08 $\pm$ 0.02