

Table 1 Suppl. Distribution of the PmCLH2 protein in *Pachira macrocarpa* leaves localized by immunogold-labelling technique at four different developmental stages. V and X represent the presence or absence of the PmCLH2 protein, respectively, based on golden particle results at different stages of leaf development.

Stages	Young leaves	Mature leaves	Yellowing leaves	Senescence leaves
Cell wall	X	X	X	X
Chloroplast inner membrane	V	V	V	X
Thylakoid membrane	V	V	V	V
Cytosol	V	V	V	V
Vacuole	V	V	V	V
Mitochondria	X	X	X	X
Nucleolus	X	X	X	X
Adjacent cell wall	X	X	X	X

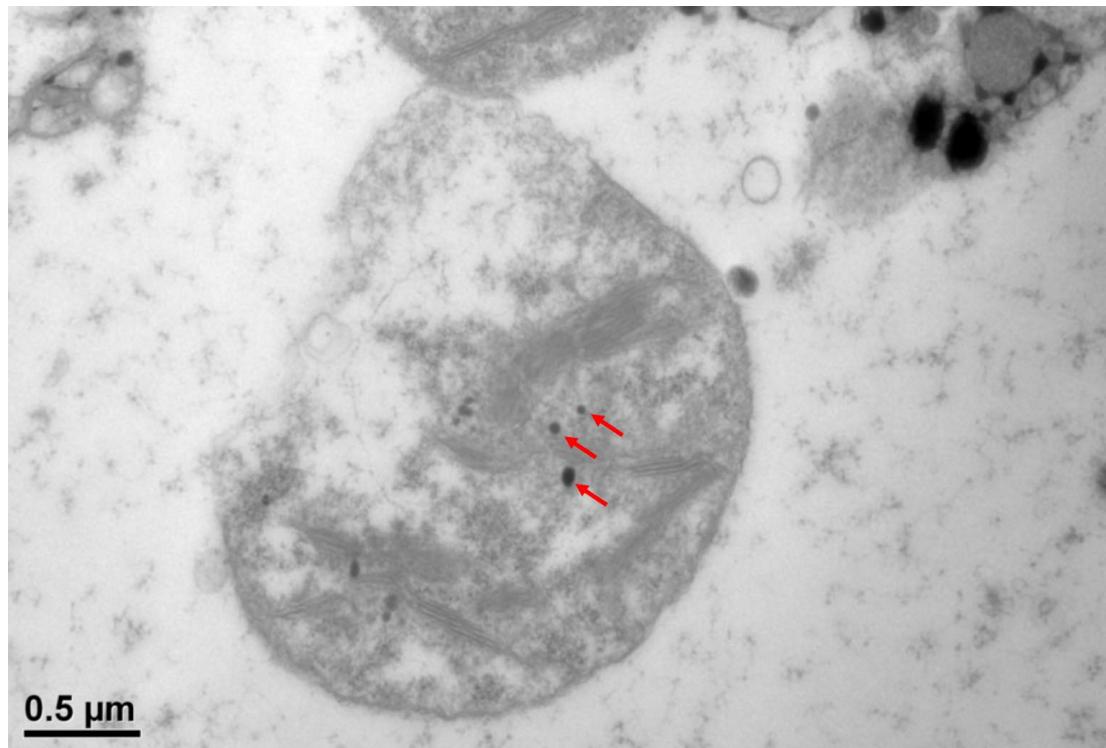


Fig. 1 Suppl. The chloroplast of yellowing leaves of *Pachira macrocarpa* was used as a negative control to the specificity of the distributed labelling particles. Red arrows indicate oil bodies.

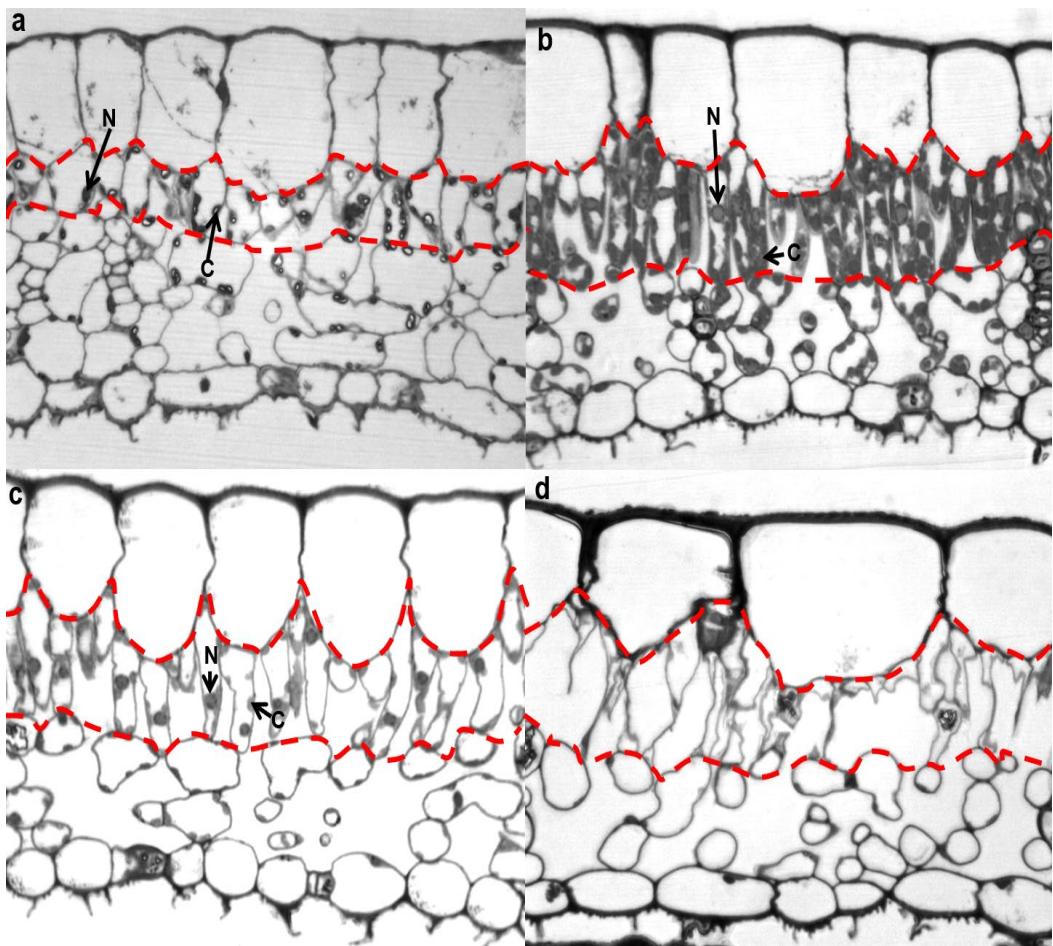


Fig. 2 Suppl. The cross-section and morphology of *Pachira macrocarpa* leaves at four different developmental stages, including young stage (a), mature stage (b), yellowing stage (c), and senescent stage (d). The red dash line in each stage indicates palisade cells (C - chloroplast, N - nucleus).

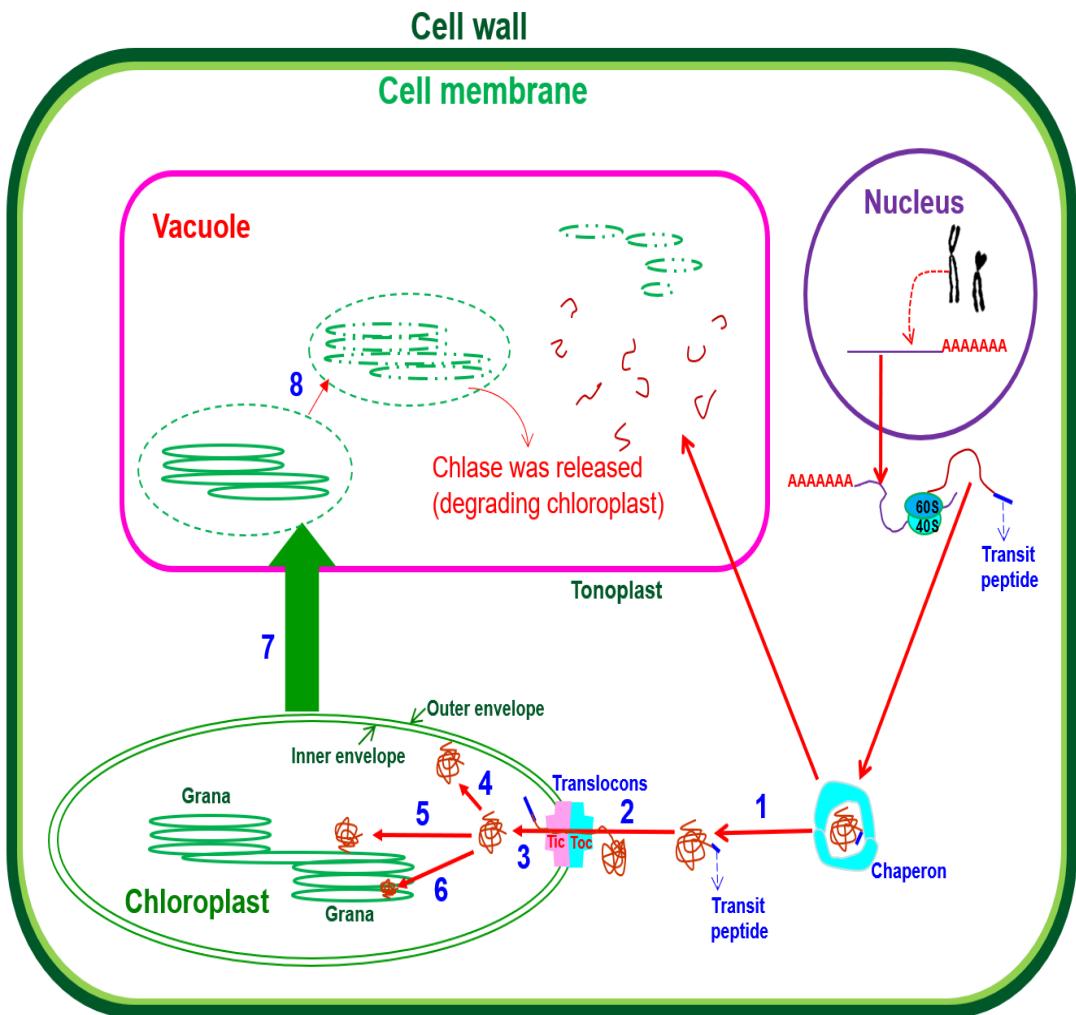


Fig. 3 Suppl. A simplified diagram for a possible pathway of the tour of PmCLH2 in cell trafficking. The nuclear gene *PmCLH2* is initially activated, and PmCLH2 proteins are then synthesized in cytosol ribosomes. After glycosylation and folding, PmCLH2s are transported into vacuoles or chloroplasts and finally, both are degraded in vacuoles. PmCLH2 could be released from chaperon (1), transported into the chloroplast through protein translocon (Toc/Tic) complexes residing at the chloroplast inner membrane. 2 -. After PmCLH2 has been transported into the chloroplast, transit peptides are truncated (3). It is then anchored and localized in the inner membrane (4), thylakoids (5), and grana (6). Those disintegrated chloroplasts will be transported into vacuoles (7), degraded in vacuoles (8), and then PmCLH2 are released from the envelope-disintegrated chloroplast.