

Vacuole is very important plant cell organelle which can occupy 90% of cell volume. It provides wide range of functions. Considering enormous size of the vacuole, vesicle trafficking into the plant vacuole is major vesicle movement inside the cell. Transport pathway into the vacuole is very dynamic field of plant cell biology. This sorting machinery shares similarities within all eukaryotes, but plants also have their own specificities. Soluble cargo is targeted through secretory pathways by vacuolar sorting receptors (VSRs). These proteins due to its transmembrane localization can interact with sorted cargo and take it to the right organelle within the cell. Membrane fusion is facilitated with Rab-GTPase and SNARE protein complexes. A special kind of vesicle traffic is autophagy, the self consuming process that protects the cell from various type of stress or enables apoptosis.