

Abstract

Autophagy is a cellular mechanism when cell gets rid of its damaged or unwanted components. These are wrapped into a double membrane and creates so-called autophagosome, which is transported to the vacuole, where its contents are degraded or recycled. Autophagy runs essentially through whole life of the plant, but if it is necessary, for example in response to stressful conditions, it is significantly intensified. It is relatively complexly regulated mechanism, which, especially in plants, still has not been completely described.

Autophagy plays an important role under the influence of stress conditions. Especially, the effects of abiotic stress play an important role in plant life. Plants are immobile organisms so they must therefore develop mechanisms to enable them to survive in adverse conditions. In response to different types of stress, we can observe different roles in the involvement of autophagy, whether it is disposal of poorly folded proteins, remobilization of nutrients or antioxidant mechanism. Autophagy is also especially important for the process of stress memory and regulation.