

Autophagy is one of the defense mechanisms of the cells. It is highly conserved from yeast to man. Cytosolic proteins or whole organelles are degraded by this process. Autophagy is induced by various conditions. We distinguish several types of autophagy, e. g. macroautophagy, microautophagy and chaperone-mediated autophagy. Macroautophagy is carried out through the cellular structure called autophagosome. Degradation takes place in the lysosomal compartment of the cells. A large number of proteins and regulatory molecules is involved in the whole mechanism. Autophagy is connected with the other cellular mechanisms such as the cytoplasm-to-vacuole pathway which extends under optimal growth conditions of the cells. Autophagy also works as a defense mechanism during viral infection or it is misused by viruses for their benefit.