

Q - write an account on Heterophagosomes ? (5)

Heterophagosomes are called heterophagic vacuoles heterolysosomes or phagolysosomes. They are formed by the fusion of primary lysosomes with cytoplasmic vacuoles containing extracellular substances brought into the cell by any of a variety of endocytic processes e.g. pinocytosis, phagocytosis or receptor-mediated endocytosis.

The digestion of engulfed substances takes place by the enzymatic activities of the hydrolytic enzymes of the secondary lysosomes. The digested material has low molecular weight and readily pass through the membrane of lysosomes to become the part of the matrix.

Q - write an account on Residual Bodies ? (5)

They are also called dense bodies or telolysosomes. Residual bodies are formed if the digestion inside the food vacuole is incomplete. Incomplete digestion may be due to absence of some lysosomal enzymes. The undigested food is present in the digestive vacuole as residue and may take the form of whorls of membranes, grains, amorphous masses, ferritin like or myelin figures.

Residual bodies are large, irregular in shape and are usually quite electron dense. In amoeba the residual bodies are eliminated by defecation. Residual bodies may be retained for long time & load the cells resulting in ageing.