

Endoplasmic Reticulum (ER):

1. Rough ER (RER): Studded with ribosomes; involved in protein synthesis.
2. Smooth ER (SER): Lacks ribosomes; involved in lipid synthesis and detoxification.

Golgi Complex: Involved in protein sorting, glycosylation, and sulfuration.

Lysosomes: Contain hydrolytic enzymes for digestion; known as the cell's "suicidal bags."

Peroxisomes: Contain enzymes for oxidation reactions and lipid metabolism.