Microtubule

Microtubules are hollow tubular structures formed from tubulin protein subunits. They are involved in various cellular processes, including cell division, intracellular transport, and the maintenance of cell shape. Microtubules also serve as tracks for motor proteins like kinesin and dynein to transport cellular cargo.

The cytoskeleton provides mechanical support to the cell, allows for changes in cell shape, and facilitates intracellular transport. It plays a critical role in processes like cell division, cell signaling, and cell migration. Cytoskeletal proteins can undergo dynamic reorganization to respond to changes in the cell's environment, making the cytoskeleton a highly adaptable and essential component of cell biology

Microtubules are a component of the cytoskeleton, found throughout the cytoplasm. These tubular polymers of tubulin can grow as long as 50 micrometers and are highly dynamic. The outer diameter of a microtubule is about 24 nm while the inner diameter is about 12 nm. They are found in eukaryotic cells and are formed by the polymerization of a dimer of two globular proteins, alpha and beta tubulin.

---

see Microtubule inhibitor.