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Ubiquitin

National Cancer Institute

Source

National Cancer Institute. *Ubiquitin*. NCI Thesaurus. Code C17227.

Conserved nuclear and cytoplasmic Ubiquitins are synthesized as either a polyubiquitin precursor with head to tail repeats or as a single ubiquitin fused to an unrelated tail protein and are typically involved in selective ATP-dependent nonlysosomal degradation of cellular proteins, histone modification, maintenance of chromatin structure, regulation of gene expression, stress response, and ribosome biogenesis. Ubiquitins often appear to be covalently bound to proteins as a marker for degradation. Ubiquitin-dependent proteolysis by the 26S proteasome plays a pivotal role in cell cycle progression. (NCI)