

Open Peer Review on Qeios

## Nuclear Lamina

National Cancer Institute

## Source

National Cancer Institute. <u>Nuclear Lamina</u>. NCI Thesaurus. Code C13809.

The nuclear lamina is a proteinaceous filamentous meshwork of lamin proteins interacting with integral proteins of the inner nuclear membrane, including emerin, and is thought to play a role in nuclear stability, chromatin structure, and gene expression. Lamins are highly conserved in evolution and members of the intermediate filament protein family. Mammalian lamins are classified into two major types, A and B, with two subspecies of each: lamins A and C for the A type and B1 and B2 for the B type. Lamins A and C arise from one gene by alternative splicing. Pre-lamin A contains a carboxyl CAAX box that can be modified by farnesylation. During mitosis, the lamina meshwork is reversibly disassembled in parallel with phosphorylation of the lamins.