

Cellular Senescence in Atherosclerosis: A Comprehensive Review of Mechanisms and Implications

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C. Cellular Senescence

Abstract

Cellular senescence is a state of irreversible cell cycle arrest that is induced by various stressors, including DNA damage, telomere shortening, and oncogene activation. It plays a critical role in tissue homeostasis and cancer prevention. In atherosclerosis, senescent cells contribute to plaque formation and progression through the secretion of pro-inflammatory factors and extracellular matrix remodeling.

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