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Review [Biomolecules](#). 2023 Nov 15;13(11):1653. doi: 10.3390/biom13111653.

# Ellagic Acid and Cancer Hallmarks: Insights from Experimental Evidence

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PMID: 38002335 PMID: [PMC10669545](#) DOI: [10.3390/biom13111653](#)

## Abstract

Cancer is a complex and multifaceted disease with a high global incidence and mortality rate. Although cancer therapy has evolved significantly over the years, numerous challenges persist on the path to effectively combating this multifaceted disease. Natural compounds derived from plants, fungi, or marine organisms have garnered considerable attention as potential therapeutic agents in the field of cancer research. Ellagic acid (EA), a natural polyphenolic compound found in various fruits and nuts, has emerged as a potential cancer prevention and treatment agent. This review summarizes the experimental evidence supporting the role of EA in targeting key hallmarks of cancer, including proliferation, angiogenesis, apoptosis evasion, immune evasion, inflammation, genomic instability, and more. We discuss the molecular mechanisms by which EA modulates signaling pathways and molecular targets involved in these cancer hallmarks, based on *in vitro* and *in vivo* studies. The multifaceted actions of EA make it a promising candidate for cancer prevention and therapy. Understanding its impact on cancer biology can pave the way for developing novel strategies to combat this complex disease.

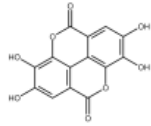
**Keywords:** cancer; chemoprevention; chemotherapy; ellagic acid; hallmarks.

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## Figures



**Figure 1** The Hallmarks of Cancer. This...



**Figure 2** Chemical structure of ellagic acid.



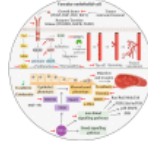
**Figure 3** Ellagic acid eliminates self-sufficiency in...



**Figure 4** Effect of ellagic acid on...



**Figure 5** The effect of ellagic acid...



**Figure 6** Ellagic acid's impact on angiogenesis,...

All figures (8)

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